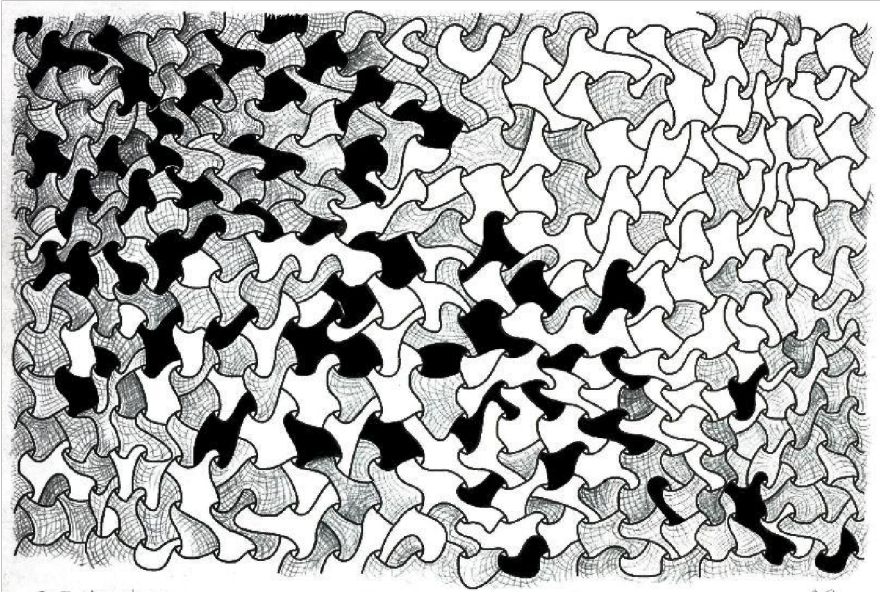


# *Matters of Gravity*

(Part IV of a series of novels *Not Julie*)



*R. Fred Vaughan*

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The author hereby acknowledges the debt he owes to loved ones in his family and to Patrick Finney and Robert Seitz who reviewed and commented on much of this volume.



## *About the Author*

The author was born and raised in the Skagit valley of Washington State. He and his wife reside down a private street in the greater Seattle area. They have raised two children of whom they are very proud.

Mr. Vaughan took his degree in physics at the University of Washington in Seattle. He spent thirty years in electronics research engineering publishing numerous technical articles in the proceedings of conferences in his field for which he received prestigious awards. Several patents have been issued on his inventions.

He has also written many less technical articles and essays that have been published in technical journals, trade magazines, and high IQ journals. He edited a society journal for many years and edited an intellectual blog.

Not unlike protagonists Ray and Roger Bonn, his avocation has been the investigation of alternative theoretical explanations of physical phenomena. His interest in, and opinions concerning, the philosophy of science have motivated much of his writing.

Yes, he is a Seattle Mariners fan and hopes that one day they will win a World Series... but he has his doubts.



## FOREWORD

*Matters of Gravity* is the last of four novels that together tell an epic tale of several generations of the Bonn family. But this novel can be read with no familiarity with the earlier three – in many ways it is perhaps the best introduction, the alpha as well as omega. The revelation of earlier secrets foreshadows major events in the protagonist's lives. The title is a play on words, 'matter' and 'gravity'. Matters are both philosophical issues and physical substance. Gravity pertains to both the solemnity of life and death as well as the central gravitational force providing the gyrations of planets, stars, and galaxies and (as explored in this novel) the indivisibility of fundamental particles. The novel explores the gravitas of the various modes of birth and death with the overwhelming joy and grief that uniquely associates with each, all the while protagonists ostensibly theorize about the nature of gravity and how it explains the 'strong' force of nuclear physics.

Without being a main character in any one of this series of novels, Julie Davidson's presence nonetheless looms large as leit motif all through these pages. Her introductory role in this final novel is her most major, and although largely excluded earlier she has provided an essential center to the flow of events throughout; she is in many ways the Charles Marlow of Joseph Conrad novels – there but *not* there – to clarify 'what happened when no one else was looking'.

The titles and topics of all these novels have related to specific physical theories: relativity, thermodynamics, cosmology, and (in this instance) gravitation. The all too human arguments that ultimately lead to major discoveries in these disciplines of physics are treated empathetically in the respective novels. It is in many ways as though each novel were a tribute to Simplicio, Salviati, and Segredo of Galileo's *Four Dialogues Concerning Two New Sciences* – unwitting participants in scientific debate. Thus, the background of each novel is scientific discovery, but the foreground involves the all too human aspects of the world of major league baseball, family crises, and internal demons that overwhelm endeavors to clarify and ultimately publish scientific discoveries. The stories themselves center around people who are just people, their personalities and character.

This, like the other novels involve romance in the sense that Saul Bellow's novels are romance novels, i.e., character-driven rather than

plot-driven fiction with protagonists falling in love along the way. Despite romantic interludes, these books are not *about* romance per se, rather they *include* romance because we are by and large a romantic species no matter our ostensible intellectual interests.

Prodigious success and misfortune of the Bonn family, like those that befell Job in the Old Testament account, provide clarification of character. Plots, to the extent that there are plots as against seemingly random advantageous or catastrophic events affecting the protagonists as they would the reader, are merely distractions to the development of the protagonists' character and scientific publication endeavors.

The success of any novel depends ultimately upon the validity of its appeal to what engages the interest of its readers. This includes irony, inevitability, mystery, sensuality, jealousy, and other aspects of human emotional involvement. Meaningful human intercourse, as experienced in the lives of readers, is what is sought vicariously in fiction. These novels include that as well as an aspect of the human experience that is too seldom addressed in this genre but is central to the normal conduct of modern life – intellectual intrigue. As critic, Peter Stern stated with regard to Thomas Mann's epic novel *The Magic Mountain*, "seeing that modern men are as often intellectuals as they are gamekeepers or bullfighters, Mann's preoccupation is, after all, hardly very esoteric". Why then should any novelist be defensive about describing the exhilaration of intellectual discovery, of enlightenment? Nor should promoting the thrill of scientific advancement be anathema. Sinclair Lewis excelled when he finally put satire aside to write *Arrowsmith*, a novel saturated with words and scientific processes of which his readers had most likely never heard.

Despite widespread bemoaning their lack of mathematical ability, vast numbers of the novel reading public have taken algebra courses, calculus, physics, chemistry, biology, and genetics. They are not ignorant of scientific concepts. News media informs us of significant developments in these fields, often with unnecessarily condescending treatment. We understand the appeal of scientific advancement, the unequalled enchantment of scientific discovery, the yearning for the truth about the universe we live in, and often yearn to be informed more directly, more honestly. No justification should therefore be required for a central theme involving the discovery of alternative scientific explanations of phenomena with which we are all familiar, but whose theoretical explanation has remained technically flawed for



centuries. No elevated human emotional experience could be more amenable as the central theme of a novel.

The few equations and scientific diagrams that are included in these novels should be viewed as a warranty of the authenticity of the description of the human activities. Readers and critics are jurors in the trial of the author and his work; as such they must be informed of the evidence as surely as before a court of law. Jurors see a weapon they could not create or use, but its presence is required to execute the case. So there are in these novels a few equations and graphs; they are authentic even though presented merely as evidence. To the extent that a desire exists or arises in readers to understand a mathematical formulation, separate technically sound accounts have been relegated to associated non-fiction volumes and technical papers available on the author's site. The human aspects of discovery are topical to each novel, but their discussions are each backed up by detailed technical explanations.<sup>1</sup>

Scientists are cut from the same cloth as athletes, housewives, farmers, carpenters, or any other realization of human capabilities; scientific acumen does not preclude athletic, aesthetic, or other abilities, nor reduce vulnerability to irrational decisions that affect us all. Ability to understand mathematical formulations that describe physical phenomena does not preclude appreciation of sensual beauty associated with a formal description of phenomena or wonderment that goes with such observational experience. Jealousy, empathy, rudeness, kindness and the full range of human behavior and interests are typical also of those who are scientifically inclined. Misfortunes and the awful coincidences that sometimes affect certain lives more than others – the Hyannis Port Kennedys come to mind – does not occur more or less frequently for those in possession of scientific abilities. The Bonn clan suffered similarly although they are more scientifically than politically inclined. Scientific ability may actually amplify the depth of human emotions due to a fuller understanding of the correlated phenomena. Use of the term 'scientific ability' here rather than 'scientific knowledge' derives from a distinction between 'knowing how' and 'why' as against a merely vague familiarity with the associated facts, the 'what' aspect of knowledge.

Yes, of course it would be nice if there were to be a readership – if a market even matters in intellectual discussion. Some things must be

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<sup>1</sup> <https://fred.vaughan.cc/>

written whether there is a readership or not. Writing for readers rather than what an author feels in his bones will always be suspect. Author J. D. Salinger considered his critics and readers more of a distraction than a benefit, preferring to write without the immediate publication his work. But there must be scientists and mathematicians, of which there are many, who might enjoy reading about people who share the similar mode of thinking as well as, or instead of, about ballerinas, musicians, ball players, gamekeepers, astronauts, and bullfighters. Nor should we diminish the pleasure a scientific layman can enjoy in the vicarious excitement of the scientific endeavor and sometimes strange implications of the phenomena thereby discovered. It is also notable that the gamekeeper Mr. Millar in *Lady Chatterley's Lover* enjoyed reading about the atomic physics of his day. And why not? Learning about new discoveries of our age and how they were made is a meaningful activity that engages us all. Nor is Mr. Millar's more notable engagement without vicarious interest to scientists.

Fred Vaughan

*“And the LORD said to Satan, ‘Have you considered my servant Job, that there is none like him on the earth, a blameless and upright man, who fears God and turns away from evil?’” – Job 1:8*



# PART I

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# 1 UNTHINKABLE THOUGHTS

Although not at all like Margie's, Julie's 'home away from home' had become the nexus to all that used to be and still remained between them. Such musings concerning the little girl she loved so dearly always gave Julie pleasure. But there were also aspects of what 'used to be' one chooses not to think about unless and until one has time to sort them out more fully. And, of course, *some* things one does not think about at all. We do not have the energy or trust ourselves enough to think about them; we know implicitly that they cannot be sorted out. They just hang there like fruit rotted on a tree.

From deep in reverie Julie was but vaguely aware that Marcia Miller had entered the lounge and begun a painful process of sitting on the couch beside where Julie had earlier had the nurse place her wheelchair. She could, of course, perambulate the chair quite well on her own, but the nurses seemed to like to accommodate her. Julie was aware that she was somewhat of a pet here in her new surroundings at 'the home'; it embarrassed her a little.

No, it isn't Miller anymore though, is it? That was what it had used to be two marriages ago, back before any of them, back when Canyon Creek was a little town in a canyon instead of beneath a reservoir.

"Oh yes, very nice." Julie responded to Marcia's mundane comment on the weather, concluding with, "Maybe the rain is finally over for a while."

"Well, we've had enough of that now, haven't we, Dear?" Marcia had a tremblingly tentative, but still condescending, way of disseminating her peculiar brand of bitterness. It had already begun to annoy Julie right after settling in. Although she hadn't quite determined just what it was in the way Marcia spoke that was the irritant; it wasn't just the tremble that seemed to be getting worse that had that effect on her. Nor was it the cynical turn in and of itself; she actually found that rather refreshing. It was just a combination that didn't work. It might have for some, but not for Marcia.

"Is the arthritis a little better today then?"

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“A little, Dear. And how are you today. Your hair looks so nice again.”

Julie noticed again that Marcia’s short clip exposed her scalp in little odd-shaped patches over her entire head, making it impossible for Julie to respond in kind. “I’m just fine. Hair is just hair, Marcia.”





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“But yours has stayed so thick and lustrous. Life has been good to you.”

“How many days in a row has it rained anyway?” She would get Marcia back on the weather.

“I think it's been forty.” Then after a spell of chuckling that sounded almost like cackling to Julie, she added, “days and nights. Yes, it's been day and night.”

“Biblical proportions.” She shouldn't have asked if she hadn't wanted the knee jerk reaction. Marcia's 'knee jerks' weren't as full or fast as they would have been even six months ago when Julie had first arrived. The conversation in 'these places' is horrendous Julie noted for the umpteenth time and noted also that she was noting such things so repeatedly that she wondered whether she herself were not already operating in the automaton mode prevalent among the inmates of these places. Any one of them could say what they'd always said, but nothing new. Never anything new.

Marcia grabbed for the handlebars of her aluminum walker and began a creaky ascent. “Well, I must be off to check on George this morning.” Again, the cackle.

“You just sat down Marcia. You'll ruin what's left of your knees.”

“Oh no. George needs me. We're just like this.” She made an attempt at hooking a crooked index finger under the next to odd effect almost as though she had intended an obscene gesture.

Julie got the idea; she smiled; everyone had gotten the idea. And George was only the latest.

The muted clink and clank of the walker on the indoor-outdoor carpet faded into the background of other noises of the new Canyon Place Convalescent Center that Ray had helped to build, what had been intended to be a school for the children of the displaced citizens of Canyon Creek so many years ago.

Ray Bonn. His name never occurred to her, as indeed it did repeatedly throughout her waking state, without being followed by a significant pause. He had been that kind of person – one of whose memory is always followed by a significant pause. And these pauses were not initially filled by thought. It was as though there is some kind of shuffling going on in the brain to an appropriate thought to think in their regard. But it was also as though there were some mechanism at work in shuffling certain thoughts back out of sight. Yes, there was definitely an aspect of that that must be thought about when she had time. Well, it wasn't as though she had not *had* the time these last months. But then... as Ray would probably have said, “there is no such ‘thing’ as time. Time and space are just relations that specify

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how far an observed event is from the one who observes it. That is all there is to time." Those events and her observations of them had been a long time ago now even if sometimes it seemed like yesterday. But today it seemed again as though it had been a long time indeed, but she was using the term differently again. Such thoughts employ the 'other' definition of time, memory time. She tried now to remember how he had explained that these senses of 'time' could be rectified. It doesn't matter; it's just what happens 'in the fullness of time'. This event right now in this place and time, staring out through the landscaped shrubs and small manicured trees to the wooded cascades with their bare clear-cut patches out across the unseen reservoir was so awfully far from any of those events - that mattered.

"One doesn't really have the privacy in these places to sit and ponder without being at risk for having one's medication upped, does one, Reverend?" The smiling reverend Randolph Etherington had entered and settled in beside her now.

"No. I guess that's true, but I won't tell. Am I disturbing you, Julie?"

"Oh no. There's lots of time until there isn't." She returned his smile.

"Penny for those thoughts." Then, "I won't turn you in. If we smile a little and insert a chuckle here and there, they'll think they have the dosage just about right." One of those deceptive chuckles was inserted here that defied her to not respond in kind.

Her upper teeth grabbed a flabby lower lip that had once been so full and sensuous. Watching her, Randy added, "Ray Bonn, I'll bet."

"You'd be a wealthier man now if you had chosen the life of a river boat gambler."

"Not really. I'd only have bet on sure things, and they don't offer very good odds on those."

"No, they don't, do they."

"Well..."

"Yeah, well." She looked directly into Randy's eyes. He had a practiced way of extracting information. "Maybe you should have worked for the State Department then. You're pretty good at getting people to talk."

"I don't seem to be succeeding too well this morning," he smiled.

"There's a lot to think about with regard to Ray." She observed and then paused. "There are the easy thoughts that everyone thinks and talks about in his regard - the memories he made that are a part of everyone's cognitive apparatus."

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"Cognitive apparatus?" Randy chuckled. "One doesn't hear that term bandied about much in this place. There isn't much of that equipment left lying around here."

"Well, you know what I mean. Ray told me once that there are people who occupy a specific physical location in virtually everyone's brain. You mention their name and a specific spot in everyone's cortex lights up with activity that can be measured by instruments. He mentioned Bill Clinton in particular, but I suppose he knew that he had a spot in there too."

"He knew," Randy responded, laughing jovially now. "He was not oblivious to the facts of his own achievements. Never was."

"No. You couldn't have expected him to have been; he wasn't oblivious to his faults either though. But I was trying to get beyond that spot in my brain that is like everyone else's just now, Randy. My brain has lots of spots with Ray's name on them that no one else has, but some of them don't want to light up for me, if you know what I mean."

"Why he ended up the way he did, is that what you're thinking about?"

"Well, yes, that... but more than that. I still talk to him, you know." She looked at Randy to see what he thought of her admitting to talking with the dead with regard to appropriateness of the dosage of her medication.

Randy showed interest with no apparent derisive considerations as he continued to sit thoughtfully.

"But Ray and I never really talk about any of 'those' things."

"It happens. Everyone in here talks to someone. I do. My Mary. And very occasionally it seems as though she talks to *me*." He tipped his head back a little as though checking out the sunken lighting. "They're real; they really are."

"Ray explained how that happens in a way I understood one time – back in the day." She smiled over at Randy. "They live in our minds you know. We have models of how they would react to the things that are happening to us. And *they* do in fact react, using *our* bodily functions. They just kind of take over."

Pondering that a bit, Randy replied finally, "Yes. I suppose that's what it is, huh."

"And we ourselves are just models that reside in there too." She laughed out loud. "It seems funny to say, but in actual fact, there is a body that goes by each of our names, but 'we' are something different – more than that." Randy looked perplexed but poised to speak.

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"It's not the 'soul', Randy." She pre-empted. "Spare me that. It's just the model of who we 'are' and who all *they* are. *That* is what we are."

"I didn't know you were into existentialism, Julie?"

"No, and I'm still not." Then after a moment of shared silence she continued, "But we do establish patterns of behavior for ourselves that are what everyone associates with *us*, don't we?" She had emphasized the 'us' as somehow a special distinct category of what and who we are.

"Yes." Randy paused in thought. "I suppose we do. There are actions I cannot conceive of performing because I never have."

"Maybe you should have and then they would have become a part of a bigger you." She smiled teasingly.

"No, no, no."

The nurse walked by smiling at the two of them approving of their apparently cheerful banter.

"But I see what you mean."

"Yeah." Having acknowledged Randy's acceptance, she recalled now how Ray would have used the same minimal expression. "And we know how those we know intimately would have reacted bodily to situations to which we would react quite differently. If we were in their bodies, we would be off doing what ours can't."

"Yes. Mary would have got up and left a few minutes ago, but I can't."

They were still enjoying this comment when a ruckus tore their thoughts away and Randy was up and stepping toward the hall from where the noise had come. It was Marcia.

"But I *love* him!" Marcia had shrieked in her trembling voice.

"Oh God," spurted out from Julie's lips. She looked around, assuring herself that no one had heard her and settled in to thinking of the intonation Ray so repeatedly had given to that expletive. "Poor Marcia."

The noise continued. Randy's voice became a part of it, seeking to assure Marcia that, in fact, she did *not* love George.

Julie's head nodded a little as she silently whispered without audience, "Oh yes, she does, Randy."

Meanwhile the nurses were scrambling. Then Josephine was calling from the desk phone to the doctor on call. "Josephine at Canyon Center here. We need doctor James immediately... or anyone." The pause and then, "George Peters... Yes, his heart... Good."

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Down the hall in the East wing Marcia's anguish was not being easily dismissed. "I was just loving him," she cried, "the way he needed to be loved. We love each other." There was a little sob and then, "Ouch! Don't do that, Dear. You're hurting... me." The speed and volume of her utterances were being lowered by degrees and then extinguished altogether.

Nurses and aides were continuing to scurry in and out of George Peter's room. It was out of Julie's field of view, but she visualized it, nonetheless. Marcia's granddaughter Anita's soothing apologies could be heard; obviously called forth to excuse the forcing of her own grandmother into a necessary silence by plummeting her into a chemically induced snooze.

Several of the other inmates who were capable of perambulation thumped and hobbled into the lounge away from the ruckus making eye contact, then shrinking but still with knowledgeable expressions of what was taking place... again... in 'this place' where this sort of thing happens all too often. Only these few are able to acknowledge it even when they witness it.

"It's hard, you know," was what Edith Stuart came up with after much consideration. "Just hard."

"It is hard," Julie seconded.

"Very hard," Evelyn Widener confirmed. Then the less vocal of those gathered around nodded, tears welling up in some of their eyes. A couple added amens.

The hubbub was over. George had exited stage door left accompanied by the familiar 'boys' from the undertaker at the town of Concrete. Marcia was still in her unnatural sleep down the hall and Randy was off somewhere consoling someone. The 'place' was quiet. Julie was once more alone in the lounge with only Ray to occupy her thoughts, the wonderfully pure boy who was all man, the only man who had ever been worth a damn. He could never have been a George or a Randy... or anyone else who would end up in a place such as this. He had gone over the edge a long time ago now. Marcia and Randy were the only ones of that generation of kids from up the Creek to have survived to this age, and primarily it was only Marcia's body that had survived. She had been one of those 'good people' that make you wonder whether being a 'good person' is such a good thing after all. She still is a good person Julie affirmed for Ray's benefit, if she's still a person at all. The other occupants of 'this place' are all vegetative transplants that came upriver after the dam had already been built.

Ray understood.

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Then Julie was back where she had been before Marcia had contributed so substantially to dispatching George Peters.

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The three women bantered back and forth as they prepared the meal. They seemed to each know what was to be done and not to get in each other's way. Ray sat in the breakfast nook area playing with little Margie. It did indeed seem to be a happy household however strangely populated.

Ray was cooing to the baby, lifting her in simulated soaring flight complete with purring engine sounds.

Margie smiled and made little gurgling laughing noises.

"She's just like her old man – even looks like him with that thin hair and faraway look," Ray laughed.

"Isn't that cute?" Lesa whispered with motherly pride.

"He's happy, isn't he?" Julie contributed. Her emphasis reflected her lifelong affection for the man, Margie still secondary.

"Yep. He's as happy as if he had good sense and it were his own child," Sharon blurted out loudly. "His dementia has progressed so far that he can't even tell that she's the spitting image of Lesa, not *him*. There's not a strand of DNA in common between them."

Sharon's comment fell like a china cup on ceramic tile.

The other two women turned to each other, confused; then both turned to stare with disdain at Sharon. Lesa's jaw had dropped at first and then anger showed in her face as she addressed Sharon directly.

"What did you say?"

Oblivious to danger, Sharon laughed. "Well, technically, it isn't his baby at all, is it?"

Ray was watching Sharon now too, a steely gray anger had arisen that showed through his narrowed eyes and clenched teeth. He stopped Margie in midflight, her eyes wide and fearful now. He leapt to his feet with Margie balanced tentatively in one hand.

Ray and Julie passed at half their former distance as Ray rushed Sharon. Margie was handed off like a football in a quarterback exchange to a running back. Julie continued panic stricken on around three corners with Margie clutched in her arms, down the long hall to Lesa and Ray's bedroom where she laid her in her crib. Margie was crying loudly now. Then just as quickly Julie returned to a fray where she heard pounding and crashing with loud sobs, shrieks, and the booming threatening voice of Ray Bonn.

"You bitch! I should have killed you long ago!"

Sharon screamed with terror, "I'm sorry, I'm sorry, I'm..."

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Then only the pounding and Lesa's screams of, "No, Ray, Honey! No." Loud plaintive sobs of, "No! No Ray!" Sharon had been silenced.

Julie sprang onto Ray's back as he pounded at Sharon on the floor, then slid her body around and in between them, taking the blows. "No, Ray. This is Julie, Ray. Don't do this Ray. Sharon should pay, not you, Ray. Not you! We need you Ray."

Lesa was slumped over Ray now, kissing him. "Ray, it isn't true; it can't be true. I don't know what she was talking about, Ray."

He had stopped pounding. Lesa pulled Ray back from where Julie and Sharon were huddled, Sharon on the floor unconscious, Julie over her protectively, hurting tremendously everywhere.

Gradually then Julie got to her knees to assess Sharon's condition and reached for the phone on the counter.

"Not 911 Julie! Not 911!" Lesa pleaded.

"I'm calling Tom," Julie said in a panting but otherwise collected voice. "It'll be alright."

"Hello, is Dr. Tom there? It's an emergency."

Then Tom was on the phone quickly, "What is it? Oh, hi Julie." Julie began crying uncontrollably, hysterically.

"I'll be right there with an ambulance."

"No ambulance!" she shrieked through her sobs.

"Okay, okay. I'll be right there. Just me." He hung up.

Julie leaned on the countertop across Sharon's bruised and bleeding body sobbing and sobbing. Then she heard Margie way off down the hall and stood up painfully, ran some cold water into her hands and dowsed her face, drying it on a dishtowel as she proceeded back down the hall.

Tom had been there a while when he appeared in the bedroom where Julie was still attempting to comfort Margie.

"You okay, Julie?"

"I'm okay."

"Just let me check."

There was a small gash on the side of her head where it had hit the handle on one of the drawers when she had flung herself in to protect Sharon. She had bruises over her face, arms, and upper body. No broken bones.

"Is Sharon going to be okay?"

"I think so. Lesa says you saved her life."

"I hope so..." she paused for a long interval, "for Ray's sake, not hers."

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"I understand," he said. "We'll talk later. I have to get Sharon back home with me so I can set some bones. I don't think I should leave her here."

"No. She and Ray Bonn should never be on the same side of a continent ever again."

"I'm sure she'll understand that. Allie should be home right away. She can take a break in her campaign – she's evidently way ahead. Sharon will certainly need some care for a while and then we'll get her on her way.

"I guess Margie is fine other than being a little traumatized, huh?"

Margie stared at Tom, her crying having subsided with his calm demeanor.

"Yes. She's pretty sensitive to what went on here, but she'll be fine. Did you check Lesa?"

"Some bruises - not as bad as you. Ray broke his hand; I'll be over later to put a cast on it. He let me give him a shot." Tom smiled his first smile. "That'll help." He paused as he turned to leave and then added, "I don't suppose anyone should ever do whatever it was Sharon did to aggravate Ray Bonn. I guess twice in a lifetime isn't a big number... but still."

"Let's just say she gave more than she took."

Then he was gone and had evidently somehow gotten Sharon into his Suburban with him.

Two *is* a big number, Ray, a big, big number.

Finally Margie fell asleep. Julie watched her catch each breath and let it out, then catch another, an aftermath of her crying spell. Gradually her breathing smoothed out into the guileless sleep of infants. So this was Lesa's very own baby, not Ray's. As Julie looked down at the fine features and broad forehead, she knew there was no doubt. Whatever Sharon's faults, lying was not one of them. Julie knew that she was indeed looking at exactly what Lesa would have looked like as a baby. Who better than Lesa, Julie thought.

After a while she heard the door and realized that Tom had returned to put the cast on Ray's hand. She wondered how he had done with Sharon, how many bones had been broken, ribs probably. Julie moved her body wondering whether she had broken ribs. Sharon's arm had seemed to have been bent at a strange angle; it was probably broken. A concussion for sure.



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So now it was Ray's turn. He'd be out of it with whatever Tom had given him so Lesa could tell Tom some of what had happened – as much as she would want to tell him.

Margie would be waking up shortly wanting the feeding she had missed.

In the kitchen there was no one. Evidently Lesa had taken Ray upstairs and left him there. The floor had been wiped of the blood although there were still smears where it had been swiped. Tom must have done that too before he had carried Sharon out or when he had returned. A woman would have done it better.

Julie put some water on to heat and then mopped the floor down thoroughly while she waited. When the water was warm enough, she filled one of the Margie's bottles with milk and put it in the pot to warm.

Turning then, she saw Lesa was standing there. There was a bruise on the left side of her face. It probably matched what Julie felt swelling her own face in toward her left eye. A bandage had been applied under Lesa's other eye. Both her eyes were bloodshot, and she was still sobbing silently.

"Is Margie okay?"

"Yes. Yes, she's fine," Julie replied. "She was a little upset, but she was out of here before it really started."

"Oh Julie," Lesa sobbed, "I have been so bad. I should have listened to Ray all along. None of this would ever have happened. He hasn't forgiven me for Roger, and he will never forgive me now. He will hate me forever." After a moment she added, "I will hate myself forever."

"No, no he won't. He loves you Lesa – like he could never love anyone else. It may take him awhile, but with Sharon gone he will forgive. And you, Lesa, are the kindest person I've ever known. Don't ever hate that lovely person, Lesa."

Lesa leaned back away from Julie's hold then with a tired expression that expressed more anguish than for the pain of the ordeal they had just survived. It portended the loneliness of a future without Ray's full devotion and with unmitigated self-loathing.

Julie grabbed her to hold in her arms again. "Oh, he will Lesa. He will."

Pulling away gently again without disputing what Julie had said, Lesa sighed before adding, "Well, we'll see, won't we?" and stepped over to instinctively touch the baby's bottle to assess its temperature. She touched the nipple to her wrist where a bead of milk formed.

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"Thank you for stopping him, Julie. I couldn't have. He would have killed her you know." She paused here. "I thought he would kill me too." Then, "I thought he would kill you and you don't deserve any of this."

"I thought he would too," Julie replied honestly. "But he wouldn't have wanted to kill us. He had lost all control of himself, that's all."

"He wanted to kill Sharon," she said dispassionately. Then angrily, "I *wanted* him to. Do you know that Julie? I wanted him to so badly that I couldn't have tried to save her like you did. I was pulling to get him off of you."

"It's over now, Lesa. Margie is safe and still Ray's and your lovely daughter. She has not changed because of this. Nothing has really changed. We all love her and each other and we always will. Words and blows don't change what is. Sharon doesn't change what is. Knowing facts does not change what is meant to be. Love is all that matters Lesa – *love*."

Lesa stared blankly while Julie spoke as though she did not comprehend a word of what she had said but she seemed calmer.

"Is Ray sleeping?"

"Yes." The absent-minded pause, "but I don't know for how long."

"Was his hand badly broken?"

"No. Tom said it wasn't bad."

"You?"

"No." She paused again. "My body is fine."

"Mine too. Should I go up for the night and you take care of Margie? Don't you think that might work better right now."

Holding the warmed bottle Lesa still stared. "Yes." Then after another but now more alert pause, she added, "Yes, it would work better. Please do it."

As Julie turned then to head upstairs, she heard Lesa call to her softly. She turned back to face her.

"Let's not ever tell anyone anything about this day, okay?"

"You mean about what Sharon said?"

"Yes."

"What about Ray and Sharon?"

"They won't. Ray will never say another word about it. That's how he is."

"Sharon?"

"She won't. She's smart; she will know that if her name ever comes up again in any context with Ray Bonn that he will hunt her down and finish the job." She hesitated, "and if he doesn't, I will."

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Finished, Lesa took the bottle and went to feed Margie. Julie watched her as she proceeded down the hall thinking about what she had said.

It occurred to her then as she turned to head up the stairs just how fortunate it was that Roger and Ellie had already headed South to the Bay area to find an apartment. They wouldn't be back until sometime after their courses had started and they had settled in.

Awaking to the sounds of Margie's crying Julie realized slowly where she was and how she had gotten here – in bed with Ray. He was looking at her confused now.

"It's okay, Ray. Lesa asked me to stay with you."

Ray continued to stare without acknowledging her comment. "Sharon is out of here Ray. Tom took her and he'll send her back to Boston. We won't ever see her again. But it wasn't Lesa's fault, Ray. None of it was her fault. She had no idea. You have to know that." Watching him, she repeated, "You have to accept that."

They continued to look at each other intently but it was not clear to Julie what Ray was thinking.

"Everything will be okay, Ray."

"Did I kill her?"

"No Ray. She'll be okay. Tom and Allie will take care of her till she can return to Boston."

"I want her dead."

"Ray, listen to me. You do not want her or anyone else dead. She is gone from our lives forever. That's good enough. None of us will ever see her again."

"It's not long enough."

"Ray, believe me, I know. It should have been twenty years ago. But we can't do anything about that now, can we?"

After a long silence Ray's mind seemed to have drifted. "Julie, I love you. I always have."

"I know that too, but I also know that Lesa is the love of your life. You can't forget that Ray or go back on any of it. She needs your love more now than you could ever know."

Ray held his gaze on her, but he seemed to be watching her mouth as she spoke rather than her eyes.

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"Well, George has gone home."

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It was the reverent Reverend Randy back from his recent calling who now called her away from reverie.

"It must be getting a bit crowded up there," she responded.

"What was that, Julie?"

"I mean what with us all dying off like flies, it must be getting crowded up there in our wonderful home in the sky."

"Oh, well." He hesitated a moment. "I guess a little humor never hurt any situation, did it?" After a little further reflection, he appended, "In the sky, huh?"

"George would rather have gone back to his home on the range, I'll bet. Even with the bratty kids and stupid wife."

"Wow. You're in some kind of mood. Did I disturb more pleasant thoughts."

"No. They were worse – a lot worse."

"I'm sorry. Would you like to talk about it?"

"No."

"Does death disturb you, Julie?"

She stared at him with evident contempt until he eventually withdrew his piety.

"I'm sorry. That was crude. Of course, death disturbs us all, doesn't it?"

Still she only stared at him apparently wishing him away, but finally as if to put an end to Randy's discomfiture she replied with her own interrogative.

"Do you think it was Marcia who sent him home?"

"George? Oh no. It was his time to go."

"So," she hesitated, "we each have a 'home' and a 'time' to go there?"

"Well, God determines these things, doesn't he? Not people." She chuckled perhaps a bit sardonically. "So, if I were to pull a gun out from under this shawl and shoot you dead, I would just be meeting God's schedule for you?"

Randy saw the morbid humor and laughed too. "More or less I would guess."

"You don't think a person could have an effectual schedule for killing someone else unless God had already authorized it?"

"Don't you really think that these are theological issues beyond our pay grade, Julie? Anyway, Marcia had no such schedule made out for George. Didn't you see how upset she was?"

"Yes, of course." She smiled much more congenially at last. "Why don't we change the subject? Tell me about how you decided when it was time to retire." Then, "Well, if you *are* retired."

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"Oh, that story." Randy's face lighted up like Christmas morning. "I loved the ministry." Then immediately he paused; the light that had momentarily shown in his face seemed to Julie to have suddenly dimmed. "But it was time."

"Time?"

"Yes. I didn't feel as useful as I had been. After Mary was called home, I think some of the joy went out of my ministry. The church council voted to have an assistant come in to help me. He was one of those extremely energetic young men that the young people are drawn to. He actually increased the size of our fold many fold."

"Too many sheep in the old fold?" Julie chuckled.

"Laugh if you like, but we do outlive our former levels of usefulness – even in the Lord's work."

"Believe me Randy, I do know about outliving our usefulness," she said, still with a chuckle although a little more subdued. There was also her more usual benevolent smile. "It's what happens, isn't it? I too had a very significant role that has finally been completed."

"Yes, that is what happens, I guess. Our mission gets completed – successfully I'd say. But do you know the demoralizing part?"

"Probably," she said. "But what was it for you?"

"I don't think I ever was as good at shepherding as he is."

"Well, just keep watching the news," she grinned, "and you may find that he was indeed too good to be true."

Randy laughed. "There have been some of those, haven't there? But no, not this guy."

"Guy?"

"Well, one of the guys, you know, one all the lads enjoy being around. Reverend Haley has that kind of charisma."

"Let's hope." Then, "So you retired to get out of his way?"

"Yes. Out of his shadow, I suppose." Randy seemed to think for a bit. "It's hard on the ego, I guess, to see yourself as so useless."

"Yes. That's why we're all here."

"Surely not you Julie. You raised one charming little girl to be one extremely accomplished and beautiful woman – well, I guess one would have to think that you were a major contributor to raising Tommy also. I know those kids relied on you a lot for that."

"I'll not deny any of that but all the key words were past tense just like the ones you used for yourself. Those children are raised now and it's essential that I back out of the way. If we were Eskimos, we'd be traipsing off into the winter snows now." She continued chuckling as she added, "I guess this is the blizzard of life we're in now, isn't it? Visibility is gone."

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"That's depressing, that is."

"Damned depressing really. The joy is now in memories."

"The joys as well as the sorrows are all memories," Randy amended. "I think one would have to say that, don't you?"

"I do," she said. "There are no sorrows here. They are all yesterday."

Randy sat there silently now, thinking.

"Life was yesterday," Julie added. "But it was grand, wasn't it?" She beamed now as she said it, all cynicism gone pondering the splendor of what her life had offered.

"It's Ray again, isn't it?"

"Not just him, but yes. I suppose I even loved those darling kids so much because they were Ray too."

"Truth be told, a lot of my happiness derived from having known and been associated with Ray too, even if in a more distant way," Randy agreed. "Funny how some people make such a broad swath through life, isn't it?"

"It is. He was my whole life you know. Ray and his wives and children were my closest and dearest friends, and he was always on my mind. Still is."

"I didn't really know him very well at all, but I watched him and what he did very closely from our earliest days. He was exciting to be around even if it seemed as though no one was ever very close to him." He situated himself back more comfortably on the couch and laughed. "You just watched and were amazed. In high school, when you played with him on the team you were aware of him and what he was going to do next and so you never worried about yourself and what to do; you watched him and did what he told you to do. It made it all so easy. That's why we had the good teams; it wasn't teamwork, it was Ray-work. I doubt if he saw it that way. He always seemed oblivious to his effect on others, but if they didn't fit in, they got left out. Jonesy had a hard time with that. He always seemed to think he deserved a role more on a par with Ray's. But he didn't."

"You knew Ray about killed him?"

"Oh yeah. Everyone knew but no one said anything about it. Only Jonesy had the audacity and... stupidity," he chuckled, "not to know that you don't mess with Ray Bonn."

He paused, both of them deep in thought.

"How badly injured was Jonesy that time?"

"Well, I don't know. He missed a couple of weeks of school, I think. There weren't any broken bones because he could still play when he came back, but he was green and purple... and yellow

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everywhere for a good long time. Well, I guess his nose had to have been broken; it was never the same. But you know... as soon as his color was back to normal, he was as cocky as ever, but Ray never hung around him after that."

They both seemed off on separate thoughts. Julie was wondering how Sharon's injuries had healed up and whether she had ever recovered any of the 'cockiness' that had been her demise."

"Was that because Jonesy had gone out with Helen that time?" Randy asked.

"Yes."

"Wow. I'm glad I never ventured to ask her out."

"You would have been safe enough as long as you didn't rape her." Her demeanor was very serious as she said it.

Randy did a double take. "What do you take me for? I would never have done a thing like that."

"Of course not. Jonesy shouldn't have either."

"Oh." Randy's mouth remained ajar after the expulsion of air. "So that was what happened. We all thought Jonesy was just lying about his ability with women like usual. Now I get it. It never made sense before. So why did Helen even go out with a guy like Jonesy?"

"Not to get raped."

"Oh, I know." He paused. "I do know," he repeated his understanding. "That was awful, but still, she didn't belong with a Jonesy – not ever. He was... well, he was low class. So why'd she even go to the dance with him?"

Tangentially Julie offered, "I went with Jonesy one summer."

"Oh, yeah, but..."

"Yeah, but what?"

"Oh, I'm sorry. I've been simply awful. What is wrong with me Julie?"

"You're human Randy – it's a really hard thing." She chuckled.

"Yes," he said. "Very human and it's a very hard thing. I have to get cleaned up for lunch."

He was up then and hobbled off cheerfully.





## 2 A SLOW RECOVERY

That next day down that serene little street was not full of forgetting or forgiving. Most days aren't, but the big difference with this one was that whereas most days don't require much of either, this one did, and it wasn't there. None of them talked much. Ray was completely silent although not threatening in any way. Lesa was nervous – jittery really. Little Margie fussed the entire day and then later, on into the night.

It was Julie who stepped around getting meals started and working through the tension. She tried starting innocuous conversations, but to no avail. Lesa would answer briefly, look over at Ray, who sat there without expression and then she would clam up, touching Margie in ways that seemed more to irritate the baby than to have any calming effect.

Later in the morning Tom called. He was on his way over and didn't want to alarm anyone with regard to some outsider maybe witnessing any of their colorful injuries. Julie let him in. Both she and Tom said the right things with the right cadence, but with body language that communicated questions and answers with regard to the current status of the situation.

After having looked Lesa and Julie over routinely, Tom approached Ray, concluding with. "I think that hand will be alright in case you ever want to go up to bat again."

Ray inspected Tom's face with only a minimal increment of interest above what would be called catatonic. "You think I'll survive this one," he said without emotion or revealing any interest that he must surely have felt with regard to Sharon's condition.

"Everyone's going to be alright," Tom said to allay whatever fear Ray might have had. "And no one seems to be talking. I guess you got it all worked out and that's the way it's gonna' stay," he said with a bit of a twinkle that surprised Julie. At any rate, it was clear to all that Sharon was no longer comatose but had committed herself to

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silence. Although not completely transparent, that was obviously the message Tom had intended to bring and that everyone wanted to hear.

“Oh, by the way, Allie wants to come over to speak with Julie about some situation that has come up in her race. Is that okay, Julie? I’ll stay home and mind the store while she’s here.”

Thus, Tom came and left having contributed many fold to the total words to have been spoken up to that point.

Allie came over shortly. Lesa said hello briefly and went off with a fussy Margie. Ray was evidently upstairs where he and Julie had spent the night.

It was clear to Julie from the start that Allie had no concern relative to her campaign. She was curious – and concerned.

“Julie, you’re a mess!” she said finally. “Lesa’s hurt too. What on earth happened over here? Sharon was nearly dead Tom said. Lesa told him that you had saved her. Is Ray okay? I mean up here?” She whispered as she pointed to her head. “Are you all in danger?”

“We’re completely fine now, Allie. Tom took our problem away. As far as what happened yesterday, don’t ask. Don’t ever go there. You don’t want to know. Trust me... you *don’t* want to know.”

“But are you sure the rest of you are not in danger?”

“No. We’re fine. But if you were to bring Sharon over here, she’d be dead in a minute. Don’t ever for any reason even mention her name in this house ever again. I understand only enough to know that much, and I don’t want to know any details. If Sharon should offer to tell you anything at all, you should tell her that you never want to hear her side or any detail of what transpired over here.”

Allie looked terrified. “Thank God, the kids were gone. I’m sure their ‘good’ news about Ellie being pregnant hasn’t lowered the tensions around here.”

“Yes. That would have been bad if they had still been in town. Roger would not have handled it very well, would he?”

“No. He’s so much like Ray,” was Allie’s comment, “whatever would bother Ray would bother him.” She sat thoughtfully then for a few moments before rising to leave.

“And you’re right, that ‘good’ news contributed a lot of tensions.”

“Tom said that our job was just to get Sharon well enough to put on a plane. That’s what we’re doing Julie. She isn’t talking and we won’t ask her anything.”

“Good. And thanks Allie. If it weren’t for you and Tom, who knows what might have happened. It would not have been good.”

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The next days were better, but not a lot. Yellows and orange began creeping into the blues, purples, and greens of their bruises over the next few days and on into weeks. Eventually they lightened and memories of the ‘incident’ faded somewhat as well. Everyone was glad that Roger and Ellie had been safely at Stanford when this had happened, but none of them mentioned that. Ray had taken up permanent residence upstairs in Roger’s room it seemed; the women had the two downstairs rooms.

Gradually little bits of conversation began to happen. But tension was high. Lesa seemed to have developed a bit of a twitch.

When Roger or the other boys did call, the residents with one accord let on that everything was usual, but those conversations never lasted long either.

The first change of events that could have been considered a really positive change was when Ray asked Lesa if he might hold Margie. At first Lesa did a double take, her eyes twitching as she brought the baby over to him as though she feared for herself or Margie. He took her and held her to him mumbling affectionately as she smiled up at him cooing in her way.

The women looked at each other and smiled a little. But then almost immediately Lesa ran off sobbing. Julie looked at Ray a moment, noticing a nod of his head that indicated that he would like Julie to go to Lesa. She was with her a long while until finally Lesa had fallen into an exhausted slumber.

When Julie returned to the breakfast nook area Ray was still there holding the sleeping baby.

“Is she alright?” Ray asked.

“She’s sleeping now,” was all Julie could tell him.

“Should I go in,” he asked somewhat to Julie’s surprise.

“Yes. Yes, do. I think you should; it would really help. She needs you.”

Julie took little Margie from him and set about to get her a bottle ready as Ray headed off rather uncertainly down the long hall. She was amazed at how much the baby’s mood had seemed to change just to have had Ray back to his usual doting self. She continued to putter around with the baby in her arms until Margie fell to sleep again and then Julie laid her down on the couch and continued with the housework. It was a few hours before Ray came back.

“I can’t reach her,” he said. “Maybe you should go in.”

As Julie entered Ray and Lesa’s bedroom, she witnessed Lesa sobbing on the bed. She sat down beside her, laying a hand on Lesa’s waist. They stayed that way for a long while. Finally, Julie said, “He

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really cares for you Lesa, and he loves Margie so very much. None of this will matter in a little while when we all get feeling better.”

“I will never be better. I can’t pretend I have not done awful things. I’m the one who let this happen.”

“Lesa, you must acknowledge that it has all ended well. Margie is the sweetest child. Ray loves her with his whole heart, and he loves you with his whole heart. None of that has changed. Sharon will not be here to interfere anymore, so let’s just go on as the happy family we’ve been. That book still has to get out you know.”

“Yes, yes, it does, doesn’t it? I must get at that.”

“Is there much left to do?” Julie asked more to keep Lesa’s attention diverted than out of an intense interest in the book itself. “Why don’t you go ahead and work on that some. I know Ray would like to help with it. Margie will be all right with me. We get along nicely. And you’ll be right here.”

It wasn’t long before Allie informed them discretely that Doctor Sharon had been sent on her way back to Boston.

Their nearly usual relationship began once again. Ray would sit in the office as Lesa worked at wrapping up what was left of the cosmology book. Sometimes he would have Margie in there with him holding her; at other times he would be reading a novel or proofing some material that Lesa had printed out for his approval.

“We have to find a different publisher,” Julie overheard Lesa tell Ray on one occasion.

“Definitely,” Ray had responded.

Clearly Edna’s association with Sharon had cursed any further relationship with Edna, and therefore with McGregor Publishing, as far as Ray and Lesa were concerned.

The book went to press shortly with a proof copy made available to them in very short order for their ultimate approval. They perused the book together for a few days and seemed to take pleasure in it except for the fact of Lesa’s having had it published without her being listed as co-author. Clearly this was an issue that had a long history about which Julie knew only the barest essentials. She watched as Ray worked to change her mind without success. Her arguments clearly baffled him; he was no longer any match for her. Julie heard them arguing one night after they had gone to bed. It was something Julie had never heard them do before.

The next day when Margie was napping and Ray was off in another room with his novel open on his lap and he had his head thrown back with his mouth open snoring, Julie went in to talk with Lesa.

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“Sorry to bother you,” she began. “But I was just wondering why you won’t put your name to a book whose ultimate success will depend almost exclusively on your extreme efforts over the last year?”

Lesa finished whatever comment she was writing with her pen, then laid the pen in the book, and closed it.

“Because, Julie, these are Ray’s ideas.”

“It seems to me that a lot of them have been yours.”

Lesa sat silently for a few moments staring at Julie. Then finally she asked, “Did I ever tell you that my mother killed herself?”

Julie was taken aback but followed the digression, “No. Certainly, I was aware of the situation, but it was my understanding that Peter Landau had killed your mother.”

“Yes, he was culpable. He was the ultimate cause but not the proximate cause.” She paused again. “When I was in therapy that year after I met Ray, I was finally able to remember everything that had happened. Peter did threaten my mother with the gun, but he was too cowardly to have done anything for which he would then be held accountable before a court of law. I even find it hard to accept that he could have gotten up the courage to take his own life six months later.”

“You mean he didn’t shoot her?”

“No. She grabbed the gun from his flabby little fingers and said, ‘If you’re actually going to kill me, you’re going to have to pull the god damned trigger, Peter. Then she did it with dramatic flair.’”

“My God.”

“Yes.”

Julie recovered after a moment’s reflection, “But what does this have to do with this book – or anything else?”

“Everything. It’s the way the world works. Men are the indirect causes of everything; they get the credit and blame for every creative act and that’s fair – that’s how it should be.”

Julie was baffled. “No, that most definitely isn’t fair. That *isn’t* how it is or should be.”

“Yes, it is. You see Julie. All a man can do is start something; it takes a woman to finish it. We are so obviously the ones who produce the final products on which we don’t need to place our names.”

So Julie let it go.

October was already nearly over by the time Roger and Ellie came home from the university for the first time. Ellie was very visibly well into her pregnancy; her due date was around the first of the year. But whatever bad feelings there had been about that situation, had long since passed and all family members were happy for them because

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they themselves seemed thrilled about the coming event. Ellie would take off winter quarter and have help with the baby before spring quarter began. Roger was on contract to play summer ball, so Ellie would come back to the Northwest for the summer.

On the Saturday when they were there the Bonns and Wilsons all went out to a restaurant on a cliff overlooking Puget Sound – The Cliff Hanger restaurant where Ray had first shown Andrew the design that once patented had become his early retirement, which had in turn enabled everything else. Angle parking was available on both sides of the restaurant that had been built to project out over the cliff. There were huge boulders placed to keep the cars from getting too close to the cliff. Ray, Lesa, and Julie who sat by the baby's car seat in the back rode in Ray's new Range Rover that had replaced the SUV. That vehicle had been given to Roger and Ellie, which Roger now parked next to the Rover. Tom and Allie had ridden in the back. Ray pushed the Rover up against one of the boulders and actually pushed it six inches closer to the cliff and then set his parking brake such that the rock was tipped up at a precarious angle. When he got out, he moseyed around to the front of the vehicle to inspect it.

Having parked right next, Roger too walked to the front of the Ranger to comment on what Ray had done. "What's with this?" he asked.

Ray walked up and around the boulder so as to be right next to Roger. He looked down over the drop off a couple of hundred feet or so. "It's a long way down there, isn't it?"

Roger looked disturbed. "Of course it is. What'd you think?"

Ray just stood there staring for a bit at the rocks with waves beating gently against them before turning and walking with the others on into the restaurant. They all watched him, probably all wondering what was going on inside his cranium, doubting whether it was as coherent as what would have been going on in there even a few months earlier in the year.

But Lesa had watched him more intently than the others, commenting to Julie who was right next to her and was holding Margie right then. "I can just see him jumping off the Canyon Creek dam."

Julie did a double take. "What are you saying?"

"It's how he would like to go," she responded as though it were a mere matter of fact.

"He's happy, Lesa."

"Happy isn't Ray," she said.

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Maryanne, the morning attendant came in to tell Julie that her niece would be there at ten o'clock and to ask whether Julie would like help with her hair.

"Oh, yes, would you please?"

Tangles always seemed to get into her hair even though she braided it every night. She didn't think she tossed in her sleep that much, but tangles were always there every morning.

"Is it Ellie that's coming, Dear?"

"Oh, no. I think she said Stephanie. Can that be right?"

"Oh, yes, Stephanie. Ellie is probably at some playoff series where Roger is playing this weekend."

"Yes, that's right. They're in the World Series this year, aren't they?"

"Good for Roger," Julie said. She recalled now having seen him on the TV in the lobby. Was that yesterday?

"Those girls do care about their auntie, don't they?"

"Yes, they are so good to me."

"You never had any of your own, did you?"

"I guess not, but it feels as though I had. Margie and even Tommy seem like they are my very own."

"It's obvious how much they care for you too."

"Yes."

She was soon situated in the lobby looking out at a dreary day alone with her thoughts again, waiting for Stephanie. She was usually late.

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After Roger and Ellie had gone back to California Lesa seemed to regress from what had seemed to be an improving situation. It felt to Julie as though Lesa had developed some kind of neurotic obsession about Margie not being safe around her, as though she might turn on Margie as somehow being the cause of the rift between her and Ray. She increasingly wanted Julie to take primary care of the baby. She asked to move the crib into Julie's room even above Ray's protest. Julie decided to let Lesa do it herself if that was what she wanted so it could not be construed as Julie having taken over. Later that same day Lesa did take the crib apart and move it without assistance from either Ray or Julie.

But it wasn't as though Julie and Lesa weren't still as close as they had been, but neuroticism became the watchword for Julie. She was

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Careful about every interaction with Lesa because she seemed so frail mentally. It was obvious that Ray too was on pins and needles because of her. He tried to restore their former pleasant times, but pleasant times were not easily had any more. The smallest task became a big deal that had to be planned and coordinated carefully.

Lesla's general condition had seemed to deteriorate dramatically. Julie suggested to Ray that he might want to discuss Lesla's condition with Tom. Maybe there was some medication she could take that would tend to relax her so she would be more like her old self. Evidently Ray had done that, because on an occasion when Tom and Allie were over for an evening, Tom had broached the sensitive subject with Lesla that resulted in a rather awkward outburst.

Then one day Lesla told Julie that she had been working on a letter to Margie.

"To Margie?"

"Yes. She'll need to know what happened."

"Can't you just tell her when she gets old enough?"

"I..." she hesitated too long, "may not be here."

"Are you alright?" Julie asked, surprised. "Shouldn't you go in to have a checkup?"

"Nothing's alright," she responded too loudly. "It never will be okay, and it has nothing to do with my health."

"Oh, I think maybe it does, Lesla. You really don't seem well."

"I need you to help me with this," was her dismissive response.

"Of course. I want to help in any way I can," was all that Julie could reply then.

"Okay, help me with this letter and don't tell Ray about it."

A tremendous sadness settled in on Julie whenever she thought about the letter that she had become an anxious party to. But she played along seeing some therapeutic advantage in Lesla putting down what Julie helped to balance with some measure of objectivity. They would work on it off and on for short periods of time, rewriting, and even starting over several times. There was a lot neither of them knew about what had transpired – a lot that only Sharon would know.

As the general well-being of the family unit continued to decline, Ray began accompanying Lesla on grocery shopping trips with the primary change in this procedure being that Lesla now drove. She claimed that Ray's driving scared her. Ray would just chuckle at her concerns, but she never seemed to see any humor in it.

Lesla decided that she wanted to have a big family get together over Thanksgiving. She had Ray help to coordinate this plan with Eddie and Lisa and with Jamie and Judy. Lesla was still quite close with



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Stephanie and Allie and still eased the troubled relationship between mother and older daughter. Allie's elected commitments took an increasing amount of her time as she came up to speed on her new responsibilities preparing to spend major blocks of time in Washington DC. But both Stephanie and Allie agreed with Lesa with regard to the occasion being a wonderful reunion. Lesa's father Fredrik and Cynthia, and even her half-brother Leonard made plans to come west for the occasion. Through all of this planning Julie's primary responsibility remained the care of Margie.

Although everyone was given assignments, it was still a lot of strain on Lesa, and she increasingly showed the stress. Ray's intellectual prowess was noticeably declining; even Julie noticed it with concern. He compensated by being more jovial than he had ever been. He seemed to have put the calamity with Sharon behind him as though having (and perhaps he had) completely forgotten. He worked to make the Thanksgiving occasion very special. But with his failing memory he did make noticeable mistakes with regard to mixing assignments he had been given and in doubling ingredients in dishes he was helping prepare so that they had to be thrown out and done again all much to Lesa's chagrin. He was thereafter excluded from much of what had to be done other than performing menial tasks. But even in his own deteriorating condition he noticed with sadness the dramatic decline in Lesa's. He spoke to Julie often about it when they were alone together.

One could not say that the Thanksgiving occasion went off without a hitch; there are always hitches, but it was the grand occasion that Lesa had hoped for with everyone seeming to enjoy it immensely – except perhaps for Lesa. Nothing had been done well enough or timely enough or with the proper flair. All their guests, including Roger and Ellie who were now guests too Julie knew, with few exceptions had come up to Julie privately to ask not only about Ray's failing condition, but Lesa's too. Was she not well? Several asked her how long since she had had a checkup, to which on one occasion Tom had had to confirm Lesa's statement that he had indeed checked her over within the last couple of months.

Fredrik was not well. He seemed exhausted all of the time and would doze off whenever there was a lull in conversation. He and Ray spent a lot of time together although it couldn't really be considered 'quality' in any real respect other than that they seemed to enjoy the vicinity of each other.

All in all it was a success. Even Lesa begrudgingly confirmed that it had been what she had wanted. A last reunion of the combined

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families, but no one but Lesa knew that then. Roger and Ellie had to return to their classes – final exams would be coming soon. Leonard too. Eddie had the same concerns but for classes he was teaching. Fredrik and Cynthia left within a few days, the last guests to leave which always leaves a tremendous hollow filled only with the echoes of what had been.

Lesla had burst into tears when they let Leonard, Cynthia, and Fredrik off at the airport. She had whispered something to Leonard as she squeezed him, which clearly disturbed him. Fredrik and Cynthia both comforted her with obvious concern and sadness. But Lesla had also cried when Roger and Ellie had departed. She had held Roger a long while sobbing. Roger handled it awkwardly, with Ellie in tears too.

Ray looked upon all this with somewhat confused but muted expressions. When she heard him sputter, “Oh God,” Julie could not restrain a little chuckle. He was still Ray – or nearly.

Then they were alone – as alone as four people can be when one of them is a demanding infant. Margie had been used to the doting of an entire enlarged family over the long holiday weekend and was not willing for less.

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Stephanie was stepping briskly up to the front door. She was alone. Entering the lobby, she spied Julie immediately.

“Oh hi, Auntie. I’m a little late again, aren’t I?”

“That’s fine my dear. It’s been a pleasant enough wait.”

“Is it too cold for a stroll, or would you like to go for a ride?”

“I think a ride would be nice, but let’s take my wheels in case we want to get out.”

“Sure. I brought a snack in case we want to take a little while.”

“Oh, that would be grand.”

With the help of one of the attendants they had Julie’s wheelchair safely in the back and Julie tucked into the front seat comfortably with her seat belt secured and they were on their way.

“Where?” Stephanie asked.

“I haven’t been up to the cemetery for a while. Would you mind taking me there?”

“That’s a little morbid, isn’t it?”

“Not really. My family and best friends are all up there.”

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“Not all of them. Aunt Lesa went over the dam with Grumps except for what you have right there.” She reached over to jerk the chain that hung around Julie’s neck with the heart-shaped pendant filled with ashes.

“Yes. They’re here too, right next to my heart, but we dumped a few of their ashes up there by Helen.”

“Why do all the Bonns want to go over the dam? It seems pretty silly to me. It’s just a Bonn thing. Nobody else does it.”

“No, I guess they don’t. It seems as though Adam Bonn set precedence for the family.”

“Do you think he’d have been as dominating a figure as Grumps?”

“You never got over calling Ray Grumps, did you? But no, Ray was a lot like his father I think, but Adam was not as amazingly brilliant as Ray – and he didn’t have the extreme temper.”

“Cecil and I always call him Grumps. We were too old when we found out that he wasn’t to call him anything else. He never got mad at us kids.”

“No, he wouldn’t have. But if anyone messed with the one he loved he would as soon kill them as look at them.”

“Really? I didn’t know that.”

“Not many people did. Those who did never forgot it.”

They were at the cemetery. Stephanie parked up by the enclosure of the family’s section and got the wheelchair out of the back, helped Julie into it and then pushed her up to the cement curb.

“Can you get this rig over that curb, Dear?”

“Sure. Here’s grandma’s stone.” She pushed Julie up to face Helen’s tombstone with the epitaph everyone knew by heart.

“See those little miniature roses on both sides of the stone there?”

“Yes.”

“One of them has a tablespoon of Lesa’s ashes and the other one has a tablespoon of Ray’s. It’s what Lesa wanted.”

“What did Grumps want?”

“He didn’t care just as long as most of him went over the dam.”

“With Lesa, right?”

“Yes. Roger and I mixed their ashes together and sent them on over. But I think most of them blew on up into the air. They got all over us.” Julie laughed remembering how surprised she and Roger had been with Ellie looking on. “I don’t think many ashes reached the bottom.”

They both were silent looking at the tombstones, the flora, and the Cascade foothills. It was Julie who spoke finally.

“Stephanie, Honey, would you do me a special favor?”

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“Sure Auntie. Anything.”

“Well, when I die, would you take a spoonful of my ashes and put them at the bottom of a little hole in the back of Helen’s tombstone and plant a miniature rose in the hole just for me? Just a spoonful and then the rest on over the dam.”

“But I don’t know how to get permission to get you over the dam.”

“Roger knows. He and Ellie can take care of that. Just plant a rose for me.”

Then they drove on down to look once more at the dam, passing the construction site for Roger and Ellie’s new home That would overlook the reservoir. It was coming along nicely. They might be able to move in by the first of the year. Ellie had told her that the last time they had visited.

“Why’d they come way up here to build?” Stephanie asked.

“It’s beautiful, don’t you think?”

“Sure, but so far away from anything.”

“But me.”

“Oh, I know Auntie, but you’ll be living with them. You could do that anywhere.”

“No, I think I’ll stay at the center. It will be so nice to have them all so close though.”

They continued driving down off the ridge to the promontory overlooking the dam and got out again. As they always did, they strolled over to read the tourist information boards. Ray’s photo was on there now along with his father’s. It had a caption describing how his ashes had been ceremonially poured out off of the dam along with his wife’s.

They sat in the car then to eat the sandwiches and drink coffee that Stephanie had brought.

When they got back to the retirement facility Stephanie had to leave directly in order to be home to see her daughter and little grandson who would be there when she got back and would be staying with her for a few days.

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Julie woke from her nap and as she lay there reassessing where she was and how she had gotten here, her thoughts returned again to Ray and those few days they had had together after the Thanksgiving reunion.

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Lesa had seemed to be over the worst of her depression. The four of them had some enjoyable times including a day trip picnic up to the Canyon Creek dam. They each played with Margie and seemed exhilarated.

Then on a Friday morning Lesa announced at breakfast, "It's Roger's 'final' final today. Ellie's already done with hers."

"How did he do?" Ray asked.

"Ray, honey, we don't know how he did. The kids won't get their grades for a week or so."

"Grades?"

"Yes, grades. Their first quarter at 'the Farm' will be over this afternoon. They'll be coming home."

"Where have they been?"

Julie inserted, "At Stanford, Ray. Remember?"

He had been holding Margie rocking her. He stopped his motions to stare blankly at Julie. "Where?"

"Stanford, Ray. Where you taught that course on relativity to Julie Thompson – the other Julie," Lesa said smiling somewhat on account of the mention of his favorite student.

"Julie," he said, a glimmer of recognition crept across his face and faded. Did I know her?"

"You sure did Ray," Lesa said. "Julie's have always delighted you."

"Yeah," he said smiling sweetly. "They have, haven't they?"

When Julie and Lesa were cleaning up after breakfast Lesa announced, "I think I'll take Ray up to the Cliff Hanger for a late lunch today – just the two of us. Will you and Margie be okay here?"

"Sure, it would be nice," Julie responded, but she wondered.

"You are so marvelous, Julie. Thank you again."

At about 2:30 they left, Lesa driving as their new usual.

At about a quarter to three Roger called saying that they were done; the car was packed; they were on their way.

At a quarter after three there was a knock at the door – a policeman.

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Marianne stepped into Julie's room. Seeing her lying there with tears flowing down both cheeks, she said, "Oh, Julie. Did someone come in to give you the news?"

"The news?"

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“Yes, we heard from the hospital this morning that Randy has passed.”

“Passed?”

“Yes, he’s gone. His suffering is over.”

“The word is died, Marianne. We die.”

“Well, he’ll be missed, won’t he?”

“He will,” Julie allowed. She wondered whether as he ‘passed’ he had remembered catching that long pass from Ray Bonn way back when Canyon Creek was a town that is now at the bottom of a reservoir.

There was commotion in the center with talk of the preparations for the funeral of another favorite. Marianne approached Julie with a phone and offered to wheel her to a more private location away from the noise.

“Hello. Oh, Hi Ellie, how have you been? Oh, I’m fine too Dear. I think

I’m virtually indestructible. It’s my role to watch what happens to others.”

“Are you okay, Auntie? I could be there in an hour or so.”

“No, no. I’m feeling fine. Randy died this morning, so I was just feeling a little sorry for myself, but not really. Stephanie and I went by the new house the other day by the way. It seems to be coming along nicely.”

“Yes. Supposedly we’ll be in by the first of February. You’ll have the big room at the south end with the panoramic view of the lake and the Cascades.”

“Oh, no, Dear. I’ll stay here and we’ll be next door neighbors. That will be so nice. And you’ll be free to travel with Roger whenever you like.”

“That’s the other good news I was calling to tell you. Roger is retiring – if not now, then after next season. He hasn’t decided for sure yet.”

“What about Tommy? Wasn’t he planning on playing with Roger?”

“He used to think so, but it would be a lot of pressure – for both of them – I think. It wasn’t Roger’s team that drafted Tommy, remember? He was already ‘taken’ as they say, when their draft pick came around. Anyway, it might be a year or so before Tommy makes it to the majors. That’s how it works.

“I just wanted to tell someone the good news, and you’re always the one I want to tell.”

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“Oh, thank you Ellie. It is wonderful news. How is Tommy?”

“He’s good, Auntie, but he doesn’t call his mommy often. Roger talks to him – about the game, you know.”

“And Margie? Do you hear from Little Margie?”

“Not often. She is so intent on her studies, you know. She never seems to relax long enough to think of us. Does she call you sometimes?”

“No. She doesn’t call me often either, but she sends me a note sometimes in the cute little cards I get from her along. I think she sees a funny card when she’s shopping, and it makes her think of her old granny.”

“No granny, Auntie, you are the only mother she ever knew, and she loves you very much.”

“Oh, I know she does. I miss her. Will she be up this summer do you think?”

“Oh, I imagine. She usually does, doesn’t she?”

“Yes, she always likes to get with Tommy. The two of them are like two peas in a pod.”

“Yes, I know. But don’t use that phrase around Roger, okay? He worries.”

The two of them laughed thinking of the ones they love and how they all interact.

“Well, I’ll let you go then,” Ellie said signing off. “I love you.”

“I love you too child.”

Then Julie sat there thinking of all those who had come up in her conversation with Ellie – and those who hadn’t.

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Naturally the policeman had bad news. He thought it would be shocking news, but shockingly it wasn’t.

“Yes, I knew they were going there. Was it just south of the restaurant?” Julie asked.

“It was – that large boulder just south – to the left going in. Somehow it just gave way. I don’t think they were going too fast, but a witness said it was as though when they came up to the rock, they gunned it. She probably hit the accelerator instead of the break, but she must have frozen and locked it down hard. They’ll need someone to identify the bodies.” Margie who was in Julie’s arms began to fuss.

“Is that the daughter?”

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“Yes.” Julie was crying now without even attempting to stop. Margie was bawling.

“I am so sorry to have to have brought you this news and just blabber on, but we will need positive ID.”

“I’ll call Jamie, Ray’s son.” And the policeman was gone.

But she called Tom instead and had him notify Jamie and everyone else.

Julie and Margie sobbed themselves to sleep and woke up sobbing whenever the phone rang, or Margie needed changing or feeding. Then Roger and Ellie were there.

Julie never really relinquished her role as Margie’s care giver; she was for all intents and purposes her ‘mother’.

After Ellie delivered it seemed best for Julie to join the Roger Bonn family with Margie as 'hers' and Tommy as the other only child twin. The situation irritated Roger some, but he saw it as best for everyone concerned. The family became a nomad tribe that migrated every spring and fall – to the San Francisco Bay area in the fall when school started and then back to the Northwest in the late spring and early summer while Roger played ball.

After Roger and Ellie had graduated and Roger was off playing baseball in the spring and summer months, home was back down the serene private drive of such colorful background close to Seattle with the sounds of laughing children cheering it up again.



### 3 WAITING FOR MARGIE

Roger heard Ellie's call to breakfast from around three corners. He put down the manuscript he had been reviewing and headed down the hallway along the front of the house with the expansive view of the reservoir. It was beautiful out already.

Sitting down to the hotcakes and sausage, Roger commented, "Oh. This is a treat for a change."

"I remembered how much you liked it last time we had it, so I thought I'd get you into a good mood for when Margie gets here."

"Ah. We'll get along alright."

"How are you coming on that dissertation of hers? Are you going to be through it by the time she gets here?"

"Yeah, but I sure don't know what to say about it. It isn't like the old days when one reviewed a manuscript for a book where you knew how it was going to turn out as print media when the writer was done with it. This multimedia stuff she's into is like a three-dimensional mini life – or mini society. I suppose there'll be video footage and sculpture, wall hangings and the lot, huh?" He burst out laughing, thinking about Margie.

"I guess. It's her though, totally her."

"Yeah, but not me, and she insists that I be involved – participate, whatever that means. Like I'm supposed to be part of this piece of art of hers.

"It'll be all right. She's your sister; you guys have to have a lot in common; it will be an experience for you two to just be together for a while."

"She may be my sister, but we do *not* have a lot in common. I spent decades doing the major league baseball thing and she's spent the difference growing up and climbing walls of ivory halls. And I'll bet she *was* climbing those walls too."

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“So, what’s the gist of this project of hers? It’s got something to do with mythology, Jung’s psychology, primitive art... what else? This is her earthshattering breakthrough, isn’t it?”

“Well, yeah. It involves all those things, but it ties back into what Dad was always preaching about the creation myth – that society never really gets over those things, they just evolve as we do into new representations of the same realities. An equally miraculous Big Bang replaces the instant biblical creation. It may be more comfortably allocated to the more remote past, but it still has us popping out of a singularity with a *deus ex machina*. But he and Mom saw all that as having happened totally differently than that. Well, not as having happened differently as an event in the past, but as *happening* differently – present tense. The Big Bang, the creation myth or whatever you want to call it, wasn’t so much an event as a current on-going reality. The conditions associated with a Big Bang are actually realized throughout the universe at all times as a precondition for a universe to even exist at all. The high temperature intergalactic medium maintains those conditions. Black holes and the infrequent eruption of them as signaled by gamma ray bursts from almost inconceivable distances are the sinks and sources of its energy.”

“I know, Roger, but wouldn’t that scheme run down eventually like everything else – like run out of energy?”

“No, of course not. That was what their *Origins of Irreversibility* research was all about – you haven’t forgotten all that have you? At a large enough scale all loops are closed, with the universe itself being a perpetual motion machine. The river that runs down to the ocean but is continuously being replenished by the evaporation of water from the oceans, followed by rainfall onto the land, *ad infinitum*.”

“Oh yes. I forgot. It’s been so long. Still... perpetual motion? Establishment is re-thinking all that again though, aren’t they?”

“Yeah, of course. There has to be something to give out PhDs for. That’s all part of another cycle.”

“And that’s why, in the end, you chose baseball.”

“Yeah.”

“Do you wish you had kept your foot in the academic cauldron, Roger? Professor Thompson – well, Julie – wanted you to. Why didn’t you? Why don’t you – she still wants you to get back in doesn’t she? You’d have more to fall back on now that you’ve retired from baseball, like your father did, if you had – if you would. You still could.”

“I’m happy just ducking back out of sight.”

“So how does Margie’s research follow up on your dad’s?”

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“Dad was science. Whatever else he was, he was first and foremost a scientist. So was Mom. They never tangled directly with religion, but they got into the mythology some, you remember. They thought many of their problems with establishment started there; they had rejected the prevailing myths. All that Antigone stuff used to really turn Mom on too. She loved those old Greek tragedies, didn’t she?”

“Yes. I know she did. She taught us a bunch of that when we were little tots, huh? While most kids were learning a few of Aesop’s fables and the silly morals to be derived from them, we were learning the tragedies of Aeschylus, Sophocles, and Euripides with all their subtle messages. I suppose Margie got that too – mostly from Auntie though.”

“Oh, yeah. Mom wouldn’t let a charge of hers escape a classical education, even if someone else had to do it. That was why she did it for us and left the Spartan activities for Dad. He hadn’t been raised in the rituals; he had picked them up on his own to the extent that he had read them at all.”

“Before Margie was old enough to play with balls, I guess Dad was dead wasn’t he? It was pretty sad how fast he went downhill.”

“Yeah, but sad isn’t the half of it. He was in pretty good shape when we left for school. I mean he wasn’t as brilliant as he had been, but fairly normal. Then by Thanksgiving time there wasn’t much left.”

“Remember your Mom telling us the story and legend of Midas and telling us that your dad had the Midas touch.”

“Oh yeah. Before she died, she told me that I had it too.” He laughed.

“Like I wanted to hear that then.”

“She never told me that, of course, but I always thought I had it anyway,” Ellie smiled. “I’d think about that when we were having a tougher game than usual, and I needed to score.”

“Me too,” Roger laughed. “They sure programmed us to be winners, didn’t they? I wonder about Margie; she never turned out for sports in school, but she seemed very athletic.”

“Margie was a winner too – maybe more obsessed about it than we were. Anyway, what you’ve told me so far is just your dad’s – and your mom’s – take. What exactly is Margie’s?”

“Yeah, well. As far as I can tell from what she’s given me, she’s pushing that same concept even further into lower-level myths.”

“Lower level?”

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“Yeah. You know. Dad was into the creation – or maintenance, or whatever it is – of the universe itself. Margie is into Eden. Adam and Eve.”

“Eden? Paradise lost, original sin, and all that?”

“Yeah. Well, I don’t know about original sin. I don’t imagine a child of either Mom or Dad would ever be much inclined to fall for that old cop out, do you? No. I think she’s gotten more into the literary references and how this same story emerges everywhere we look throughout all cultures and eras. It’s in our psyche, which is why she brings in Jung, I think.”

“I can kind of see where your dad was coming from, but this Eden thing doesn’t make a lot of sense to me. As society has progressed, we have gotten further and further away from ideas of primordial origins of some absolute morality. Cultural relativism has replaced all that. It just doesn’t make any sense anyway. Who did Cain, Abel, and Seth, and all the rest of them take as mates? Wouldn’t they have had to have taken the daughters of Adam and Eve as their mates? Can you imagine how your dad would have taken to a myth based on that kind of incest?” She laughed thinking of former times.

Roger looked out across the reservoir and the words “face of the deep” echoed somewhere within him. It was as if there were something in the very phrase that had some hidden meaning for him. It was as though it whispered, “Here is where it all began. That is why you’re back here.”

Ellie noticed the shadows working across his face and asked, “What were you thinking, Honey?”

He laughed heartily. “Oh, I just looked out across the reservoir and was reminded that beneath that surface is where it all began for all of us. That was our genesis – the beautiful valley paradise we never saw. The Adam of the Bonn clan made sure of that.”

“Is that what’s she’s coming up to explore?”

“Yeah. I think it is. I suppose she’s proposing that everyone has their own genesis story which maps to the biblical tale. We can’t help but read our origins into such a tale. It’s probably the same way Dad saw the acceptance of the Big Bang as retaining the myth of this being *our* particular reality, not just *the* universe. Anthropomorphism. It’s kind of a profound insight getting away from it all being about us in particular don’t you think? That’s what science is supposed to be all about. But it seems like Margie is making it very personal instead.”

“I can see it – barely,” she said looking into the hills reflected off the surface of the lake. “If that’s what she’s doing. I guess it’s profound.”

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“Yeah, I think it’s what she’s about. You said Margie flies into the Canyon Place airport at three thirty, right? I better get back to Margie’s opus again if I plan to be through it before she starts drilling me.”

“Okay. I’m going over to see Aunt Julie now then. She does like it when I come each morning and she certainly knows me and likes to talk.”

“I wonder how come she didn’t get senile dementia like dad and like your mom’s biological father?”

“Yes. And Mom, too. She barely made it through two terms of office before she was noticeably demented. Poor Dad.”

“Yeah, that’s right. I wonder how much it had to do with the pollution from that mine up the valley then that was dumping all that sludge into the creek? You know, I’ll just bet that was what it was.”

“Aunt Julie didn’t actually spend that much time up here when she was growing up, did she?”

“No. Ask her about it sometime, Ellie. See what she has to say. And tell her, ‘Hi.’ Oh, and that we’ll be over with Margie tomorrow.”

“I think I’ll see if she will let me bring her over here today. Usually she won’t, but she would do anything for Margie.”

Ellie walked the short distance over to the Canyon Place Convalescent Center, nodded to the nurses, asked, “How is Auntie today?” and headed down to her room after the usual response of, “Cheerful as always.”

“Hi, Auntie. How are you feeling today?”

“I feel great, Honey. It is so good to see you again. But surely little Tommy needs you more than I do.”

“Little Tommy, as you refer to my big handsome son, left again last week to play some more baseball. Remember? He told you goodbye.”

“Oh my, yes! I am so sorry, Ellie. I remember you reminding me a couple of times this week already. Do you think I’m finally losing it, Dear? You do have the baseball mania in your family, don’t you? But that does remind me of something else you’ve been telling me – Margie. Is Margie here now, dear?”

“Not yet. She flies in this afternoon. I was hoping you’d agree to come over for an early supper; we’ll eat shortly after she comes, so you won’t be out too late.”

“Oh, it’s such a bother.”

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“No bother at all. I’ll just get some help getting you into a wheelchair and it’ll be just the nicest walk over to the house.”

“Oh, that would be wonderful then. Do I come over too often, dear? When was I there last?”

“You haven’t been over in at least a week Auntie and we both love having you. It isn’t just Tommy, you know. Roger and I love having you too.”

“I do know, Ellie, you sweet child. You look so much like your grandmother – but you’re so much nicer.” She grinned without apology.

“Well, I never knew her, you know, so I can’t agree or disagree, or even take offense for her. Let’s get your hair done up now then so it’ll still be looking nice when I come back. You can have a nap in the meantime, so you won’t be too tired when Margie gets here.”

Ellie was back for lunch. She set out some soup. When Roger came in from his office and sat down with a sigh.

“So what’s the problem?” Ellie asked.

“She’s trying to create her own Eden, I think, by pushing analogies. I guess that’s where the creative aspect comes in as against just an analytical statement.”

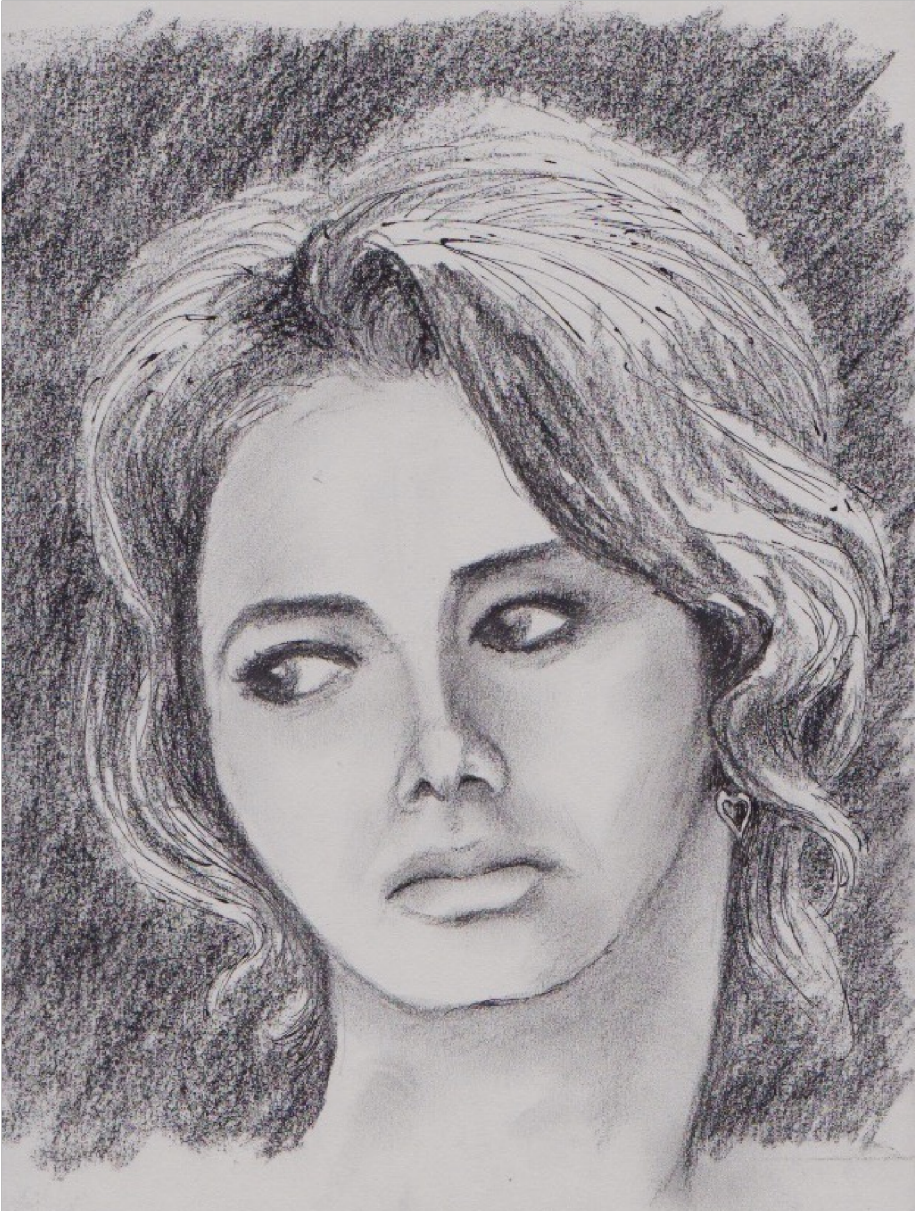
“To recreate the essential elements of an Eden for people to witness firsthand? How it should have been done, if it had been done right?” she laughed.

“I don’t know. I guess we’ll find out when she explains it.”

When the time came, Roger drove over to the local airport and Ellie walked over to the convalescent center to get Julie.

The little sewer pipe airplane that was the only type of plane that flew for the only airline that made stops at Canyon Place parked way out near the runway. So that although Roger saw Margie when she deplaned, hopping down several steps at a time, just bam, bam, bam, he could only laugh to himself about that little bundle of joy that had come tumbling into his parent’s home at about the same time he had left.

She hit the tarmac running toward the shelter where Roger was confined. Upon entering the building ahead of all the other passengers, she squealed, “Oh, Roger, my Bambino brother!” embarrassing him in front of the few who happened to be there. She threw her arms around his neck and kissed him like a long-lost lover as others watched and chuckled to themselves.



“What’s that all about, Marge?” Roger asked, pushing back, appalled.

“We haven’t seen each other in almost a year, Roger. Besides, you’ve always tried to keep me away from my kissing cousin, Tommy. What’s that all about, if I might ask?”

“We’re still brother and sister, Margie, remember? That makes Tommy your nephew if you hadn’t noticed. That kiss felt like you were fixing to do a tonsillectomy.”

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“Oh, Roger. You are such a prude, just like your father. You think I should just give you a little peck on the cheek after all this time of having been neglected?”

“He was *our* father I’ll have you know.”

“Who art now in heaven – along with Mom.” Margie laughed.

“Yeah, well. I wouldn’t go that far. If they’re there, they’re definitely being held against their will.”

They both laughed and squeezed each other again.

“It is so good to see you, little baby sister.”

“Evidently not as good as it was for me to see you. Come on Roger loosen up. We’re both grownups now. You and Auntie are all the family I have left, and I’m too young for that.”

“You are,” he said. “And so am I. But Eddie and all our cousins are still up and about, and how about Leonard? How are he and Barbara doing – oh, and little Lesa?” He got her bags and baggage off the cart that had just been wheeled over.

“Uncle Lennie’s good. He took me to the airport yesterday. Little Lesa came with him; she is so proud of that little sister. She is amazingly beautiful now, Roger. She has some kind of big-time recital coming up that I’ll miss; I hate to. Barbara was working – she really likes what she’s doing. Her work is really selling. I’m not sure how well she and Leonard are getting along though.”

They were walking to Roger’s car now. Roger threw Margie’s bags in the back; they got in and headed for home.

“Leonard still likes his teaching and research too, doesn’t he?”

“Oh, yes. That side of the family is the hoity toity side; Barbara too,” she tittered.

“Hoity toity? What do you call this other side?”

“You mean the side with all the Bambinos?”

“Is that all we are to you? Just the men behind the big sticks.”

“Apparently that’s all you’ve ever wanted to be – athletes. You could have gone to the top in any field academically if you had wanted to, but you spurned that just because you had the ability to do it with a stick.”

“So that’s what you think, is it?”

“No. I know there’s a lot more than that behind it, but I don’t know exactly what. Why don’t you tell me?”

“Yeah. Maybe that’s all there is to it. I’ll have to think about that. You’re obviously ‘hoity toity’.”

She quipped, “You bet,” looking around as they drove.



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When they passed the Canyon Place Convalescent Center she asked, “Auntie is still in that rest home right over there, isn’t she? I need to see her.”

“Yeah. Ellie went to bring her home for the afternoon.”

“Oh, good. I do love that woman; she’s almost like a mother.”

“Yeah. You’re the force that makes Aunt Julie’s sun rise every morning, you know. As long as she thinks there might be something you’ll need her for, she’s going to hang on to make sure that need is fulfilled. It was her promise to Mom, you know.”

“Yes, I do know she would, so I try to keep giving her reasons to cling to. I know what she thinks of me, and she has good reason for that too. I’m the best of a sorry lot, and she’s a smart old lady.” Margie laughed her infectious laugh again. “I call her and write her now and then, you know, but she doesn’t write me back. If you want to get information from her, you have to come to Delphi where she holds court.”

“Yeah. She may not respond to your less direct queries like you would like her to, but she tells us with pride whenever you call or send a card. She shows them with pride. That’s mostly how we keep up with the travels of Doctor Margaret Sorensen by the way.”

“You ever notice how often you say, ‘Yeah’?”

“Yeah.” He laughed.

“In a letter I read recently mom said that was just the way your dad used to speak.”

“Letter? *Our* dad.”

“*Yeeah*,” she mimicked his typical response with a big bright smile.

Then they were at Roger and Ellie’s house overlooking the reservoir.

“It’s so pretty here,” she said. “Flying in over the lake is just gorgeous this time of year with all the spring greens.”

Roger looked out across the reservoir without stating, “It’s a *reservoir*.”

When they entered the big living area overlooking the reservoir, the favorite aunt and favorite niece – or whatever they were to each other – hugged. It was a demonstration of true happiness for yet another reunion between close friends who were usually separated by the North American continent and always by the normal human life span of seventy years. Julie made over Margie, touching her here and there, saying how much she liked her hair, her clothes, her shoes, ... She went through the usual procedure of reaffirming the obvious, which was that she just liked *everything* about Margie. She looked

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exactly like her mother, et cetera, et cetera. Roger noticed with that easy pleasure of having those that one loves loved by others one loves.

“Oh, Auntie, you just love me so much, and you’ve spoiled me so much over the years that I can’t hardly tell how much I love *you* because of everything wonderful you are, as against loving you just because of how many wonderful things you have done for me. That is really sad, isn’t it?”

“Margie, you’ve always had such a cute way of expressing yourself, Dear,” was how Julie responded to Margie’s exuberance as she reached up to tug at the dangling pendant that hung from Margie’s neck. “And you still wear your mother’s pendant,” she said as she reached in to pull out the heart with a matching twist of sapphires from beneath her blouse.

Ellie hugged Margie then and immediately excused herself to go into the kitchen to finish with the preparations for an early dinner.

“I know Auntie is used to eating early, and I imagine this is about the same time you ordinarily eat – on Eastern Time.”

Roger left them too, to go help Ellie. So Margie and Julie had a few minutes together to catch up on the news in their “respective rest homes”, one up on the ridge here at Canyon Place and the other Harvard University.

Roger was laughing when he got into the kitchen with Ellie. “Them and their news from their ‘respective rest homes’.”

“They are quite the pair, aren’t they? Julie is almost like a mother to Margie, I guess. I guess it was she who did most of the raising of Margie.”

“Yeah. Age-wise she’s more like a great grandmother though.”

“What’s it matter?”

“Yeah. So are you looking forward to having to wear Aunt Julie’s sapphire collar around your neck when she passes?”

“I am,” Ellie said. “I envied Margie so, because she got your mother’s, but I know that’s how it should have happened. But yes, I will definitely enjoy all that is involved in that piece of jewelry once we get all the ashes out. I guess Margie and I will be bound together a little tighter by that, won’t we?”

“I suppose. I never really understood much of that, of course. A woman thing, huh?”

“Maybe it is, but it’s an awfully nice tradition to keep going.”

“So after you empty it out, what goes in?”

“You – if you die before me.”

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They worked around for a few more minutes with Roger finishing up the table setting in the dining room that, like so many rooms in their sprawling house, overlooked the reservoir.

“Johsons are pushing the season a little getting out their jet skis so early.

Even with those wet suits, you’d think they’d freeze to death.”

Margie was wheeling Julie into the kitchen area right then. “So how about getting yours out while I’m here so we can tour the lake like we usually do, Roger?”

“Brrr. It’s cold out there, Margie.”

“I know, but I want to go on up to where that old mine used to be.”

“My grandfather died in that mine,” Julie inserted into the conversation, but then, having been distracted by the comment. “They never did get his body out.”

“Really? I didn’t know that,” Ellie reacted from the kitchen. “What about your grandmother – my great-great-grandmother. I’ve never heard about her either. What ever happened to her?”

“Oh, she died shortly after that – cancer or something. I don’t know exactly what, Dear. Our families have typically had very tragic ends.”

Roger entered the discussion. “Yeah, but you know what? I don’t think I know what ever happened to Grandma Helen’s parents either. I know they lived up the canyon too, but their graves were evidently not moved up when they moved up all the rest of them. Were they just overlooked, or didn’t they have any graves?”

“There weren’t any,” Julie said.

“Weren’t any? What do you mean? They weren’t cremated were they?”

Ellie interrupted the conversation then to have them all sit down to the meal that she had been getting onto the table. After they had been seated and dishes were being passed, Julie was reminded by Roger of where she had been interrupted and she continued from where that conversation had ended.

“Your great grandfather died in the mine at the same time as my grandfather – they were great friends supposedly – so anyway, both of them are buried together down there about a mile underground. Under water.”

The rest of them turned to her, amazed at not having ever heard that before, maybe even a bit doubtfully.

“It’s true,” Julie appended as certification.

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“What about her – my great grandmother? She wasn’t down there when it happened, was she?” Roger kind of chuckled as he asked the question.

Thoughts of his great grandmother did not arouse much sentiment for him.

“No, of course not,” Julie said, her irritation apparent.

“Well, what then?” Roger probed.

“No one knows.”

“No one knows?”

“No.”

“No? Come on Auntie. Somebody had to know something.”

“Well I never did. I don’t think anyone knew. She disappeared shortly after they gave up on trying to recover the men is what Helen told me.”

“Which Helen?”

“My cousin, not your grandmother, Ellie.”

“You think she just walked off and disappeared then?”

“Yes. It happens – even back then. I guess they dredged all the way down the creek for a while and looked on down the Skagit, but they never found hide nor hair.”

“Hide nor hair?” Ellie repeated. “Auntie, that’s awful.”

“A lot of things are awful, child. Just be glad so many of them are now in the past.”

The younger people all looked at each other with eyes wide and mouths ajar. Margie formulated their thoughts: “So you think she just ran off somewhere?”

“My mother did,” Julie presented as her justification. “Sometimes you just have to get away. There are different ways to do it.”

“That was some paradise up this canyon in the old days, wasn’t it?” Roger rather smirked at his own ironic version of his sister’s thesis. Certainly he was thinking about the big deal that she was apparently trying to make of that paradise and its analogies.

Margie countered, “‘Thou shalt not surely die.’ Is that what you’re making fun of, Roger? You think Paradise has no role for death?”

“Yeah, I guess it is, now that you mention it.” Roger smiled at Margie who had grabbed his allusion hook, line, and sinker.

Ellie looked concerned. “What exactly are you coming up with on this thesis dissertation of yours, Margie? Are you really featuring Canyon Creek in that?”

“I don’t know if ‘feature’ is the correct term for what I’m doing with it, but it’s at least a poignant example of what I’m explaining about the human condition, so, yes. I guess maybe I am.”

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“Naming names?”

“A few of my relatives, but not in an unfriendly or unsympathetic way. I don’t think any of them would object to what I say about them if they were still alive. I feel really close to them all. I love them.”

Julie laid down her fork, wiped her lips with her napkin, and asked, “Am

I in it, Margie?”

“You are, Auntie. You are sort of the heroine of that story, I think.”

“That’s never been the right role for me, child.”

“You’ve never accepted it, but I think it has always been your role.”

“No. Ray Bonn was the driving force behind us all.”

Ellie broke in, “Okay, so it’s personal to our family. Will we have a chance to dissuade you from publishing anything in it if we don’t like it, Margie?”

“Yes, of course. That’s why I sent Roger that preliminary draft. But it seems to change with every conversation I have with anyone.”

“How soon will it be completed?”

“Oh, there’s no real hurry. I’ve finished my course work now. I’ll have to show progress along, but my advisors are very agreeable and understand that it may take a while.”

“So, Margie,” Julie responded. “Other than the canyon and the names, what’s it all about? I mean... well, I know they don’t give out PhDs from Harvard for cute family stories.”

“No, they don’t. It’s the concept they care about, and I think it’s based on a very profound concept. Fortunately, my advisors agree with me.”

“Which is...?” Roger prodded. Although he had read the draft of her thesis, he wasn’t quite sure what exactly she was trying to get across. Partly, he admitted, the personality of individual trees had gotten in the way of his view of the forest. To her, trees such as Ray and Helen Bonn seemed to be mere specimen to be viewed under a microscope. She hadn’t known them to the same degree that Roger had been familiar with his father at least.

“Well, you know how...”

Roger put his hands up to interrupt: “Margie, any concept explanation that begins, ‘Well, you know how...’ is not yet fully developed.” He laughed and the others chuckled with him – not least of all, Margie.

“Okay, Roger. So let’s defer this little presentation of mine until after we finish eating and have helped Ellie clean up. I’d like to hear

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more of what Auntie has to say about those early days up the canyon. When did the mine get started, and what was here before that?"

"Well, for all the bad we have to say about the mine, Child, and I see that it did do a lot of bad things. Helen and I attacked some of the descendants of the founders of that mine when they ran for office. They were filthy rich, of course."

"That sounds like one more bad thing they did, rather than something good," Ellie said. "Mom had some battles with mining interests even when *she* got into office much later, I think. So what was good?"

"I don't actually know whether the logging came first, or the mining, but it does seem like it was the logging. Even when Ray and Helen, and I were young, there were some of those huge stumps that they had cut off up about ten, fifteen feet from the ground. I guess they did that to make it safer when the tree fell – so it would fall all the way without rolling around on the widespread limbs near the bottom and they wouldn't know which way to run. I guess that's why. But they had notches in the stumps where the men stood with their two-man saws. That must have been some ordeal, but of course that was years before we were born. But the notches were still there, and I guess Helen and Ray used to climb up and sit on top of some of those old stumps just to talk."

"That sounds like just another bad thing that happened – chopping down all those beautiful fir trees. This must have been a beautiful forest in those days."

"I'm sure it must have been, Ellie. But even in our teens there were a few of those virgin forest trees left on the sides of the canyon walls where it was too difficult to get them. But they managed to harvest even those before the water started rising. They pretty much clear cut the whole canyon to prepare it for the reservoir."

"Yeah. Houses and all," Roger said cynically.

"Yes. Helen was so outraged when they got around to her house that the authorities had to control her. She was screaming and they drug her away."

"What did Dad do then," Roger asked.

"Well, he was either working or away at school. Ray's mother, Alice was taking care of your mother, Alice, Ellie – up here on the ridge – almost right here where you've built this place. She was probably looking down on what was going on with binoculars."

There was a pause in the conversation then.

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Roger broke the silence with, “How on earth did Dad go downhill so fast after Margie was born, Auntie? His mind seemed fairly good when we went off to school and then by Thanksgiving. Wow.”

“I guess it was fast for that sort of thing, but it started about the time he found out about your grandfather, Ellie. He claimed that that didn’t affect him much, but I think it did. He seemed to want to concentrate on how Helen’s father had died and why Helen hadn’t told him that, but I think he cared about the other too.”

“I know. He seemed so calm about that situation at the time. I didn’t see how he could be,” Ellie said.

“Your mom was in Boston with your grandfather, Margie, and so Ray and I sort of did the detective work on that issue of Helen’s father. It was interesting really, but it was devastating to Ray. I don’t think he ever recovered from that.” Julie paused, thinking about it. “And then your mother brought back the news about being pregnant with you.” Julie smiled at her. “That was wonderful news of course, but it was more onto an already overloaded mind for Ray, I think. He and I got very close at that time and your mother was so considerate of him... and me. She knew that Ray had blown a gasket or something and she thought I could help by giving him someone he knew hanging around just to provide some continuity with his past. It was nice for me; I finally had family.”

“You left after that week though, Auntie. Don’t you remember?” It was Ellie who was thinking back.

“Oh yes, Dear. Of course, I remember. Those were the most important times in my life.”

“Lesa and Ray had made some agreement about what would happen if, and when, Ray died – and they included me in that plan. Well, they were both so kind the week I was there. Ray went with me and bought me a complete wardrobe of clothes based on Lesa’s suggestions. It made all the difference in me. It was like I finally could dress to look on the outside the way I felt on the inside,” she laughed comfortably, sensing the empathy of family.

“You always look so stylish, Auntie. It’s hard to believe you hadn’t always,” was Ellie’s response.

“Well, I wasn’t always. When I arrived up there, I had no bra on, a dirty old shirt that was two sizes too small, and short pants that showed the cellulose in my thighs. It was awful. Two sheets to the wind and hitting on Ray; I was just a slut.” They all laughed. “He got me coffee and told me to straighten up or he was calling a taxi to send me back south.”

“Yeah, maybe, but he didn’t,” Roger said.

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“No, he didn’t, bless him. I straightened up and sobered up and we had the best conversations I’ve ever had in my life. He sort of put everything into perspective for me.”

“Everything?” It was Margie who asked.

“Yes, Dear. Everything – life, death, love, the past.”

“Life?” Ellie asked.

“Well, the significance of our lives, I guess. How we relate one to another and how our minds each live on in the others we know and love. That dulls the finality of death – at least for him and for me that night – it was dulled. That we were even born is such a fortunate situation, no matter how many traumas we have in our lives or however long or short they are. To just have seen the sunshine, felt the touch of another person, experienced love, felt the breeze, and if you’re really lucky, to see these people around you who love you to the end.”

“Like the epitaph on Grandma’s tombstone, ‘The tragedy is not in dying, but in never having lived,’” Ellie agreed.

“Yes, that’s the start of the thought, but Ray saw it somewhat differently than that. He saw it as sort of a probability issue like he discussed the day he retired from baseball that first time. Lesa teased him about that incessantly, but she understood what he had been saying, and she agreed with him. I only came to understand it that week I was with him. He explained it to me how the night Helen had been conceived there were the tremendous number of other possibilities that might have been realized that were not Helen. He saw the scope of the tragedy of the many billions – or how ever tremendous many other alternatives there were – of people who never saw the light of day. Those potentially intelligent and kind people never got the opportunity to see that little pond they had made up on the side of the canyon when they were kids, or to have married and had their children and all the other enjoyable experiences they had had together.”

Roger thought back of his memories of his father. “He saw everything in scientific and mathematical terms, didn’t he?”

“Even if he was a bambino like you, huh,” Margie said.

“Yeah, even with that handicap. He still thought like a hoity toity scientist.”

“Like you,” Margie pushed her point for whatever it was worth.

“Yes. He did have a scientific bent. That was the one disappointment he had in his marriage with your mother, Dear. It was that Lesa sort of gave up on the science while she had children – you and Ellie, Roger – in the nest. She gave everything to you two and



insisted that Ray did too. He enjoyed it, of course, but it got him off the track he was on in cosmology. And if we go back to the value of life again, for him a major part of it was figuring out what this universe that we happened into is all about. He was an explorer.”

“Yeah, well, he and Mom got all that going again that winter, didn’t they? They finished that book on scattering that he had been working on for at least thirty years.”

“Yes, Roger, they did. It gave him so much pleasure, too. But I think a bunch of his extreme capability was gone by then. He complained to me that Lesa was having to do the hard parts because they seemed beyond him anymore. He said that he would sometimes go into the bathroom to wash his glasses and come back only to realize that his glasses needed washing and go back to do it because when he had gone the first time, he washed his hands and wondered why he had. He could laugh about it. But he understood what Lesa came up with, and she told me that he was invaluable even in review. She said that it truly was his opus – not hers. She just knew how he would have approached each problem and then approached it that way, like it was his mind thinking in her brain.” Julie laughed. “That was essentially Ray’s minimalist idea of immortality at work.”

“But it was published posthumously in his name,” Ellie said. “She would be working on that tome for hours while Ray read novels, was talking to us, or just puttering about the house. It was weird.”

“Yes, I know. She called to see whether I could come up – which I did immediately, why wouldn’t I? She said there was some additional secret that she knew she had to tell Ray and she was afraid he might not handle it well.”

“Yeah! About me,” Roger said almost crossly.

“Yes, you.”

“The cloning thing,” Margie said.

“Yes, Dear, the cloning thing. She was afraid that with Roger and Ellie here having already done DNA analyses on themselves, they might have done, or might do, one on Ray and find out why Roger was the spitting image of Ray.”

“He should have been proud,” Ellie said, hugging Roger.

“Yeah. It was hard on me too – duh! But he seemed to have an aversion to me after that. He and I had been talking again about his discussion of the divergence theorem in his *Aberrations* book that I had been reading before that. It was so amazing to get his take on all that stuff that had affected everybody’s thinking on cosmology, and how it was all clearly wrong. But then he wouldn’t talk to me in any

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detail after that. He'd just say, 'Oh, it's not all that significant, talk to Professor Thompson about it.'

"Well, no, he wasn't proud, Ellie Dear. It broke his heart – again – because he had seen Roger as the result of that extreme love he had for Lesa. After she told him – and I was there when she told him – he was like an animal that had been shot. I knew what she was going to tell him ahead of time, and I even started crying. He couldn't understand it as being her love."

Roger thought for a few moments. "Yeah. I think he was nutso already. Who couldn't understand that that was the ultimate proof of her love?"

They all looked at Roger to see whether he was just being cynical again.

"She had been afraid he was too old to have had a baby with her. They had tried for a few months, and I guess she had Sharon do a sperm analysis, which I guess she said had showed that it was highly unlikely that he could have a child; his sperm count was so low at his age according to Sharon."

"Yeah. Sharon again," Roger said. "I remember Dad calling her 'the wicked witch' that summer."

"'The wicked witch'? That is awful. That was just what she thought they both would want. That's probably why she got to disliking him so much," Ellie contributed.

"No. I think she disliked him from the first but tried to hide it. When I first met her, she was teasing about wanting to have one of his babies," Julie laughed. "I had an instant bad impression of her from that myself. But both she and Ray had good senses of humor and should have gotten along fine."

"They were jealous of Mom," Margie said.

"'Jealous of Mom'?" Roger asked, "Why would they both be jealous of Mom?"

"She was gay," Margie said.

"Yeah. So? What about Edna?"

"I don't know. She just told me they were. What can you say about Edna?"

Ellie queried, "When did she tell you that anyway?"

"Last month when I went to see her."

"In that rest home up in Boston?" Julie asked.

"Yes."

"How is she doing?"

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“Pretty well – well, pretty bad actually, I guess. She didn’t look well. She is full of remorse, that’s for sure.”

“She was very hard on Ray,” Julie continued. “Very hard. Just the news that she would be presiding over Lesa’s pregnancy with you, Margie, was not welcome news to him. He saw no need for a resident medical research doctor. And that was before he had found out what she had done as far as implanting Roger.”

“‘Implanting Roger’ just doesn’t sound right to me,” Roger said with a smile. “But I still don’t see why he blamed all that on Sharon.”

“Sharon was a doctor, and she was always teasing about trying to get around the Hippocratic oath that is supposed to bind the profession to moral conduct. I think Ray saw her as having done something so patently illegal, to say nothing of the morality issues, whether there are any or not, that she could not be trusted. He hated that Lesa did trust her.”

“They’re still trying to change the laws on that,” Roger noted. “I wish they would get it done so I could come out of the darkest of all closets.”

“Well, they won’t,” Margie reacted in a harsh tone of voice. “Not until every other country on the planet has approved it. But evidently there are a lot of you clones in the US now.”

“Yeah. They’ve exposed a few and it seems to make the news every time – always some celebrity involved. Can you imagine the coverage I’d get? ‘Ray Bon – déjà vu all over again’, now there’s a headline for you. God, I’m sick of that line. Every time I hit a home run someone would say, ‘déjà vu all over again’ as if they had invented it. If they found out I was a clone of Ray Bonn they’d take every one of my records out of the books.”

“What would be hardest, to be exposed as a clone or to experience having been cuckolded like your Dad had?”

“Margie Sorensen, you are the God-damnedest gadfly *ever*.”

“It’s something you should maybe think about though.”

“Margie!” Ellie remonstrated. “What are you saying? Roger would *never* have needed to worry about that.” She paused a moment, and why is your name ‘Margie Sorensen’ anyway? Why not Bonn?”

“I’m sorry Ellie, I didn’t mean to suggest such a thing, but he was blaming his father for not being able to handle one kind of shock, and at the same time he would have had a hard time with another kind that his father handled magnanimously. So maybe he should try to understand that.”

“*Our* father,” Roger corrected with emphasis again.

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“Okay, our father. He did the best he could. And he’s the one who insisted I be given the Sorensen surname since Mom wouldn’t give Roger the composite ‘Sorensen-Bonn’ denominator. Surely you remember that.”

“I think you may be missing something about this whole thing,” Julie interceded. “The legal aspects seemed to have bothered Ray a lot. Both Helen and Lesa had always thought he was a prude, and he was – for whatever reason. But I think he was basically just a law-abiding citizen. The legal aspects of incest had been major to his earlier concerns, I think. And the illegality of cloning truly bothered him. The facts of Helen having someone else’s child that she had had very little to do about hadn’t bothered him nearly so much. Neither Helen nor he had done anything patently illegal in that case.”

“No, Auntie. The law has very little to do with emotional reactions,” Ellie said. “But I’ve got strawberries for dessert. Margie, why don’t you and Roger help me clear the table and then we can have dessert while we talk.”

“Roger, you just talk with Auntie; I’ll help Ellie,” Margie objected. “We can enter into what you talk about while we’re doing women’s work,” she teased.

Roger had made no move to get up, so her comment seemed irrelevant.

“Wait just a minute, Ellie Dear,” Julie said impatiently, obviously aroused by the discussion. “I know what I’m talking about, Child. I was there when Lesa told him. I know how he reacted to what she said. The legal issues mattered to him. You kids only found out later after he had calmed down some. But you know how the legal issues of incest burned on his mind for years.”

“I’m sorry, Auntie,” Ellie said. “I forgot about how obsessed he had been with regard to that, so tell us the part we didn’t know about.”

“Well, Lesa called me and asked me to come up because she had to tell Ray one more secret that would be hard on him. She liked that I had helped him through the discovery of Helen’s secret, and she had told him that there would be no more secrets, so she had to tell him about Roger. She didn’t know how he would react, so she wanted me there, just in case. She asked if I would mind just planning on staying on for a while.”

“Is that why she had wanted you to have a heart pendant just like hers – that she thought you were maybe essential to getting this secret across.”

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“I don’t know, Ellie. Maybe. It’s for real though. Ray and Lesa, and I – even though I was sort of a last-minute attachment – were one; there is no doubt about that. We loved each other – all of us.”

“Yeah, so how did he react,” Roger asked. “When he was first told, I mean. I know how he acted after that.”

“Well, he was tired. We were all tired. It was late when I got there, and Lesa had put off what she had to say. It was cold out and Lesa asked Ray if he would get a fire blazing. He liked sitting in front of the fireplace.”

“That was the weekend that the Wilsons took us up to Victoria, wasn’t it?”

When we walked through the Butchart Gardens in the rain. Remember, Roger?”

“Yeah. All fifty drizzly acres of it.”

“Well, after the fire was blazing, she had helped me draw that soft couch up close to the fire, we all sat there together, Ray in the middle. Then Lesa took over the way she would:

“Ray, Honey, remember how I promised that there would be no more secrets between us?”

“Yeah, at last,” Ray sort of chuckled his relief.

“To do that, Ray, there is one giant one I have to tell you before the slate is clean.”

“Oh oh,” he said still cheerfully.

“Roger really isn’t my son then?”

“That was his first reaction?” Roger asked now over twenty years later.

“That was it,” Julie told them. “Lesa told me later that earlier Ray had guessed that maybe you weren’t his son, when she had told him that he didn’t have to worry about incest between you two.” Julie gave a knowing smile at Ellie and Roger. “She said that he had been so sweet in saying it was alright, that it didn’t matter, that he understood, and so on and so forth about loving Roger just the same. It had almost made Lesa laugh because there had never been any other man she would ever have let near her.”

“He wouldn’t have cared?” Roger reacted with amazement.

“Of course he would have cared, Roger, but it wouldn’t have mattered. He loved you for who you were, whatever your genetic makeup. But now she had to tell him that that wasn’t precisely true.”

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“Yeah,” Roger interjected sardonically. “That she had done something illegal as if that makes any difference to the person involved.”

“Roger, your father was a proud man, an arrogant man even, but he was not a vain man if you know what I mean. He was proud, but not of *himself*. He tried to explain that to me later and I don’t know that I understand it. He said that he hated to look at photos of himself, his own image. He was proud of what he could do, his gifts, not his image. He avoided looking directly into mirrors because he did not like what he saw there, is what he told me.”

“Like you, Roger,” Ellie said.

“Yeah, like I need that right now,” he scolded, paused, and then added, “It gets tiresome having your picture always in the media.”

“Well, I don’t know what it was exactly for him, but you became a mirror to Ray, a copy of himself and he didn’t want a copy himself. He told me once that everyone deserves to be unlikely – it was a central theme for him – that who we are at birth defies the odds. Circumventing that is an awful thing.”

“So why’d he spend so much time at my games and working with the other kids and then not hardly talking to me even when I wanted him to. Was it because I was an ‘awful thing’?”

“No, of course not, Roger. It was more because to him you were *he, himself*. When we watched your games, I suppose we both saw Ray Bonn as a young man – as a sort of reminiscence. He wouldn’t go around talking to himself, now would he? And it embarrassed him – how good you were.”

“Yeah, okay. It made a huge difference in our relationship though as I recall. He was still happy enough for me it seemed like. You and he were always at my games and most of the practices that spring, remember? Mom wasn’t.”

“Yes, of course I remember. It was such a pleasure. I think Lesa was trying to get that book finished up for him without having to worry about him worrying about not contributing to his own book. And he wasn’t as comfortable with her after he found out about you. I think she perceived that, and it may have been true.”

“Yeah. She made it to the games though.”

“Most of my softball games too,” Ellie added.

“Yes, she did. She loved them. However, you remember that she usually just got there right at game time, if not a little after. Ray and I were always there early for warm up. It was almost as though it were Ray and I who were the married couple after that, and she was just

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family. Of course they were still a cuddly married couple in the evenings and slept that way, I think. But having Ray and I be together seemed to give your mother the time she needed then to get done what she thought needed to get done.”

“Yeah, probably. He still seemed pretty good after Margie came along, didn’t he? – at least for a while?” Roger tried to recall. “But then right after we went off to Stanford in September, he seemed to change. I think he had gotten so he hated Sharon, and then it seemed like Mom and Sharon must have had a falling out too. You seemed to be the only sane person in the house who wasn’t mad at everyone else. What was that all about?”

“That was another issue,” Julie said, “For which I don’t think your mother ever forgave Sharon. I don’t think they were ever friends again. I never saw Sharon again after she left when Margie was about a month old. Come to think of it, I’m not sure I ever heard either Ray or Lesa ever mention her name again.”

“See. You were a troublemaker even back then,” Roger poked Margie and laughed as a brother will with a sister as she set his bowl of strawberry shortcake in front of him.

Margie just looked at Roger with a sort of forlorn look like she was about to cry. Roger couldn’t understand what he had said wrong. Her response was so unlike her. He apologized for whatever obscure wrong he had done since he knew that usually she’d have been fighting back vociferously.

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## 4 FAMILY HISTORY

After dinner it was still light out as the group migrated to the more comfortable chairs in the large family room overlooking the Canyon Creek Reservoir. It had been very pleasant weather out, but a bit cold for the season, so the speedboats and jet skis had been retired early. A few fishermen trolled slowly, and a couple of kayaks could be seen on the far side, but other than that, a silent calm had settled over the waters with inverted reflections of the snowcapped mountains providing a classic view.

Roger had taken his cup of coffee with him; the others were now sitting calmly enjoying all there was to see. Julie had been wheeled into her favorite viewing location. As Margie sat down next to her, she laid a hand on Julie's arm.

"So what is this profound theory of yours, Margie dear?" It was Julie who set them to the task Roger and Margie had allocated to this slot of time. "How involved are we in this generality of yours?"

"That's the pertinent question, Auntie. Leave it to you to ask it."

"Yeah. Your answer to that question is definitely of interest to me," Roger comment projected concern.

Margie ignored his comment and proceeded with, "this whole issue of the significance of the general myths that are ingrained in our 'racial memories', as Jung would have put it, comes down to how 'involved' we each are in them. It turns out that everyone in any culture is intimately affected by these myths and they form the templates of all our thoughts and behavior patterns. For example, all older people mourn the passing of things the way they were when they were young. For most of *us* here, it is that 'serene little street' where we were raised. None other than Ray Bonn ingrained that phrase, in its various versions, into our consciousness. It was his phrase. It was how he saw the place where we were raised and he tried to preserve its privacy for as long as he could – the nest he would not defile, I

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guess. Eventually, of course, progress has swept it under. It is now totally destroyed. I had a taxi take me by the old place during my layover in Seattle. There's nothing left of that serene little street – nothing. There are probably ten or twenty ticky-tack houses on that property now, none of them with the least bit of charm."

"Yeah. We had to sell it; you knew that. The developments had closed in all around. The crime rate is phenomenal in that neighborhood now. The whole area has gone to hell," Roger ranted with emotion. "Anyway, we didn't want to live in the heart of a metropolitan area. We wanted to get away."

"Exactly," Margie replied. "That's my point exactly. We all remember a time when things were good, and now they're not so good. 'Progress' has taken its heavy toll. So we all yearn for that place and time of our distant past, that Garden of Eden. We try to recreate the myth."

"My dad used to say that every man just wanted to find 'a womb with a view'," Ellie contributed with a cute smile. "That's what it is, isn't it? We want to get back to the comfort we had before all the responsibility."

"It's more than that, children," Julie said. "It isn't just a yearning, for some it results in a creative act. It did with Ray and Helen. That 'serene little street' and the home they built there were *designed* as creative acts."

"Designed?" Roger asked. "How do you mean?"

"Well, the house was laid out the way Helen had thought a house should be even when she and Ray were young. And the yard? Ray laid that out to match a place up on the side of the canyon, nor under water, somewhere near where this very house sits. It was the most beautiful place you can imagine – well, I guess you can imagine, because Ray did a rather marvelous job of recreating it."

"Yeah. So our home down the serene little street was a phony replica of a more serene place further back in the past?"

Margie reacted, "Phony? Why do you say 'phony', Roger? "Just because they created it themselves?"

"The Garden of Eden was sort of a primordial sanctuary that was a part of the natural creation, not of human origin," Ellie said.

"Oh, child," Julie broke in. "'Human origin' is not a pejorative that should be bandied about." She laughed warmly. "My goodness, no. The Paradise that Ray created was a replica maybe, but it was a replica of another creative endeavor. I suppose you could say that that was just a replica too. Their sanctuary, now down there so far under water, was something those two little kids created themselves by

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dedication and hard work. It was certainly a nice spot to create their little Eden, but it was not a Garden of Eden until they had moved boulders, built their own little concrete dam and laid out a huge flat boulder for Raven's Creek to pour over as a sheet as clear as glass. You could as well say that Michelangelo's David, or his God reaching to touch the hand of man in the Sistine Chapel, was not an original creation, as to say that theirs was not. As surely as Michelangelo had to search to select the right stone or be granted the right to defile a chapel, they had to have searched this valley for the spot to hew out their little Garden of Eden masterpiece. And when they were done it was indeed a masterpiece to behold. I beheld it..." she paused, "and actually, I guess if the truth were known, it must have been me who defiled it." A tear welled up in each of her eyes and began their slow descent.

After her soliloquy there was silence as they looked out across the flooded valley that had once been a primordial paradise. The works of man had at first seemed to enhance its value by logging, farming, fishing, mining, and ultimately discarding it to benefit a different people altogether, in a city far away. But somewhere in that sequence of use and destruction it had accommodated a children's paradise right on its Eastern slope. Finally, though the continuation of what men call 'progress' had flooded it all over so that now it presented a serene view of a brilliant sunset behind snowcapped mountains, all reflecting off a man-made lake. They looked at it for a long while in silence. "You are no snake, Auntie," Margie said finally.

"I don't know what I was. Ray told me once that all these old myths that we choose to fit ourselves into don't quite work. The analogies fail in the end. I wasn't really the snake or Eve or the 'tree of knowledge of good and evil', but I was some combination of them, I'll tell you that." She did a kind of silent laugh.

"Dad said that too, huh?" Roger said, pondering. "He had something to say about just about everything, didn't he?"

"He did. That year I spent with him and your mother at the end was by far the most enjoyable of my life – just to listen to him talk. He wouldn't say much unless you were right with him, intimate like, and then he would open up like the valley itself back before the dam. You could bury yourself in his words and just go dreaming off into whatever it was he chose to describe. I told him once that I thought we were all trapped in reliving our parents' lives. That's when he told me that about the analogies all failing in the end – that they seem to work and actually give us insight, but in the end everything under the sun is actually brand-new contrary to what the holy book says."

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“Do you still think we are caught reliving our parent’s lives?” Ellie asked. “Well, I did. But Ray convinced me that we can escape that trap.”

Roger looked over at her mention of, “trap? What do you mean by that?”

“Yes, trap, Dear. I felt that I had been trapped into reliving all my mother’s worst mistakes, but I wasn’t. It was just an excuse. Ray said that he often wondered to what extent he had done just what his father had as far as spoiling his own nest. But he said that whenever he thought he might be doing something that would effect that functionality – that was what he said and how he said it, ‘effect that functionality’ – that he would purposely change what he was doing. After he had told me that, you know what? I made a right angle turn and changed my life.”

“When was that, Auntie?” Margie asked.

“Just about exactly at the time you were conceived, Dear. Ray was so fired up with all the shocks he had had that thoughts were just bubbling out of him. Anyway, child, I’ve gone on and on and what we really wanted to know was what your theory is all about.”

“It’s just a bad replica of what you’ve been talking about, Auntie. You have always been a source for my best ideas.”

“Well let’s hear the replica then.”

“Here’s the idea: In our Western civilization Genesis contains the most embedded set of myths. Whether people take the bible as literal truth as they used to or not, it fits in with what even modern scientists accept as what happened – as far as the original creation of the universe at least.”

“Margie, that’s crazy. According to the bible the universe began a mere six thousand years ago. All legitimate scientists tend to believe it was more like fourteen billion. Our father thought it had always existed, or at least had existed for a lot longer than that. That’s a big difference.”

“Sure it is. And would you quit saying ‘our’ father? Damn it! I know he’s *our* father, but he’s also *your* father and just because I happened to refer to him one time or another as ‘your father’ doesn’t mean you have to disrupt every conversation.”

“Yeah, well technically he isn’t my father at all, is he? Adam Bonn is, so do you get where I’m coming from? I can handle ‘our father’ because I get the sense in which that’s true, but I don’t get the ‘your father’, okay.”

“I see,” Margie said appeasing him now. “I do get it now that you point out the issue you have with it. I’ll try to remember.”

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Julie looked back and forth at the two brilliant offspring – of one type or another – of the loves of her life. “You two are worth having lived to witness,” she chuckled.

“They are, aren’t they,” Ellie confirmed cheerily. “So back to Adam’s paradise, or the Big Bang, or whatever it is you are writing about, let us have it. Why doesn’t the time period make any difference, or is this just an argument based on authority – the authority of Ray Bonn in this case?”

“Well, I can’t help it if I was scooped by Ray Bonn, just like my (well, *our*) mother...” she corrected mid-sentence looking over at Roger, “was on the *Origins of Irreversibility*, just because he happened onto the scene so many years before everyone else.”

Roger laughed. “You make that sound like independent phenomena: Ray Bonn happens along, then along comes his daughter Margie Sorensen, unfortunately already preceded by her father. Well, *our* father then! Okay?”

“That’s exactly right. May I continue.”

The others all laughed at her anger and so obviously messed up logic. But they listened anxiously for what she had to say, nonetheless.

“Okay, so Ray Bonn had some excellent observations. He needed my mom (yes, I said *my* mom) to help him with the *Origins of Irreversibility*. She virtually wrote the book under his authorship on Cosmological Effects of Scattering in the Intergalactic Medium.”

“It’s all right, Dear. We understand. They were just teasing. Ray wrote the book.”

“Since Ray Bonn isn’t here, let me explain his elaborated ideas to you all then. Yes. I do intend to have them published in my own name. I’ll give him a citation. That is all.”

“Yeah. I’m sorry already, Margie. Okay.” Roger said. “And yeah, we know you followed up on his ideas and have come up with original stuff he never would have imagined. We understand that. It’s how we live each day of our lives. I used to take offense whenever anyone would suggest that one of my home runs was not as significant because I was Ray Bonn’s son. That was crap, but at the same time I had to admit that the only reason that I could hit like I could, and they couldn’t, was because Ray Bonn taught me how – and gave me a little genetic infusion as well, however reluctantly. But basically that’s what happens with everyone; if you don’t get a leg up, you don’t ever get up very damned high. So what’s new?”

“Thanks, my big bambino brother. I know I get a little too sensitive, especially around people who are aware of Mom and Dad and their ideas. But I get so tired of acknowledging the extent of Ray

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Bonn's – and Lesa Sorensen's – influence. Sure, it's immense; I know it is, but enough already.”

“Yeah. That's right! I'm behind you a hundred percent, Margie, and I'll shut up and just listen,” Roger finally graciously accepted. “I have read your draft and I'm quite impressed by it to tell you the truth, but I need some things clarified. So let's do this thing.”

“Yes, let's,” Julie added impatiently. “I want to hear it. I have an earlier bedtime than you younger folks.”

“I won't proceed in the way I lay all this material out for everyone else, because... well, you know,” Margie began.

“Of course you know that all cultures have their own set of creation myths that are analogous to the account in the book of Genesis in the Old Testament of the Judeo-Christian and also Islamic cultural traditions. These myths fill in the background of the day-to-day activities of the lives of those raised in the tradition; they perform their daily routine without reference to them and they may discuss and argue about other aspects of their lives, but this background is held completely in common. There are no arguments about it. I don't mean just the religious notions that people fall back on when all else fails, because even these beliefs are held at a higher level. Internecine fights exist as far as the interpretation of the myths but not with regard to the myths themselves. They are foundational to any cohesiveness in the culture.”

Ellie stopped to question Margie here, “So you see the creation myths as the precursors of religion rather than religious products?”

“Definitely. They are as much the pre-science of a culture as they are the earliest religious ideas. The Big Bang and Darwin's evolution constitute the current version of the age-old creation myths of our culture. You refer to the creation of the universe now and it is the Big Bang that comes to virtually everyone's mind any more rather than “Let there be light”. You refer to the origin of man and it is to his evolution to which you are referring rather than his having been created out of clay. These form the common background of our scientifically oriented culture. These have merged into the background of whatever else one might believe on more purely religious grounds. Religions adapt to the myths as a way of remaining relevant and becoming acceptable as cultural shifts.”

“Interesting,” Ellie replied.

“Yes, it is. We all know our current myths and we all understand them in more or less the same way, so they form a solid foundation for everything else. So in relating socially to anyone outside of our immediate enclave of interactions we come ultimately to depend on

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them to provide templates for a common basis of communication. A modern liberal Lutheran, a liberal Baptist (if that is not an oxymoron), a Unitarian, a Jew, a Mohammedan, or even an agnostic, or an atheist would have no problem in knowing where the others are coming from in a discussion involving these myths. They all refer to the same basic narrative.

“However, if we are to include Holy Book slapping fundamentalists who insist on literal interpretations of the word in their texts, then, of course there is be a cross-cultural translation of analogous myths required.”

“These are our just Western myths though,” Roger objected. “So just how similar are the myths across cultures? What about the turtles-all-the-way-down as alternative to the turtles-all-the-way-down-to-the-one-who-stands-on-top-of-an-elephant or (the Big Bang)? Those are cultural and also philosophical differences of opinion on cosmogony, aren’t they? The universe siting on the back of a turtle or elephant. Do you address those differences?”

“I think so,” Margie laughed as she replied. “Ray Bonn subscribed to turtles all the way down, didn’t he?”

“He sure did, Margie.” It was Julie laughing loudly as she entered into the discussion again. “He even told me about that infinite regression debate. The problem with breaking

the explanation from having to explain turtles to now having to explain an elephant or a Big Bang at the bottom as well as the turtles.”

“Yeah, he dabbled in mythological counterparts of his ideas in physics,” Roger acknowledged still laughing.

“That’s a very important aspect of his thinking actually,” Margie added. “This changing of the discussion from original time and place to a logically consistent infinity.”

“Yeah. I remember when I was a little kid, him trying to explain to me how we could know for certain that the sum of one, one half, one



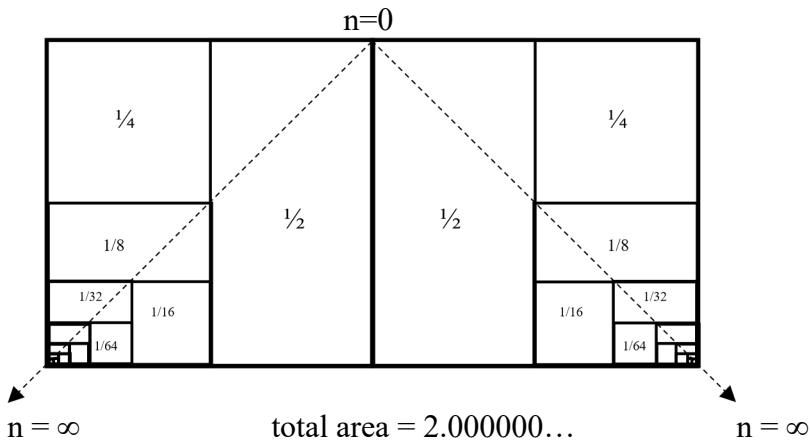
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quarter, one eighth, and so on of two to the minus nth power in an infinite sequence would finally add up to get just exactly two. He drew a rectangle on a piece of paper and bisected it with a vertical line to make two equal-sized squares and colored in the left-hand one. Pointing out that the right-hand square was intended to be exactly the same size as the other, he proceeded to bisect it horizontally, coloring in the top half. He then bisected the bottom half, coloring in the left-hand side again just as he had for the original rectangle. He convinced me that if we continued that with a microscope as the rectangles and squares got smaller and smaller, we would get closer and closer to coloring in the original rectangle that was the size of the two first level squares. Importantly, he convinced me that you didn't actually have to do it to prove it. Understanding the logical process was sufficient to prove it."

"Yes. That was also his approach to cosmogony, wasn't it? If you could establish a self-perpetuating process that maintained the status quo of the universe," Margie emoted, "it didn't need an origin. You didn't need to demonstrate an end – or even the beginning – of the process. It didn't begin or end. It just *existed*."

"Oh!" Ellie said. "I think I get it. If you take the two squares that Gramps showed you, Roger, and instead of coloring the left one in initially, what if you did the same thing to the left square that you did to the right one?" She asked it rhetorically, because immediately she answered herself: "Then you would have a definition of two as a process with no beginning on the left and no end on the right. But two would still be the result."

"Clever," Roger congratulated his wife. "And that was Dad's approach to everything – no beginning and no end."





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“But he was the alpha and the omega for me,” Julie smiled a happy little smile. “I loved that man so much.” The others looked over at her. She was trembling.

“Oh, Auntie,” Ellie said rushing over and putting an arm around her. “Maybe I should get you back to your room and we can continue with this again tomorrow.”

“Yes. I hate to go, but I think I better. I’m pretty old, you know. I may need my medication.”

Ellie ran off to get Julie’s and her coats. It seemed as though it might be chilly with the occasional sun having dropped down beneath the western foothills. The two siblings chatted with Julie until Ellie had returned.

“Couldn’t Margie take me back just this time,” Julie asked. “You deserve a little break from me, I think, Ellie. You are always so kind to this lucky old lady.”

“Sure. Is that all right with you, Margie? It’s just a couple of blocks and it’s very safe up here.”

“Oh, I want to,” Margie replied. “I don’t think I even need a coat.”

“Now, remember, Auntie. I’m coming over before lunch tomorrow. You eat with us again,” Ellie reassured her.

“Okay, Ellie Dear. I will look forward to it even in my dreams. It was all so lovely today – everything, each one of you, the strawberries, the fine meal, and most of all the conversations. I don’t get that over there. It was just wonderful. I missed Tommy though.”

“It was really nice for us too,” Ellie said definitively as Margie wheeled Julie on out the front door.

Roger closed the door behind them, walked over to hug Ellie, and said teasingly, “It really was wonderful, Ellie Dear.”

“Isn’t she a sweet old lady though? She’s a major part of our family, isn’t she? If she hadn’t happened along before we went off to school, you and I would not have been as free to go on with our lives as we were. She took over and handled everything just like she’d been doing it all her life.”

“Yeah, and she *does* love Margie.”

Margie had started out at a fast clip to get Julie back to the rest home before it got too dark out, but Julie objected.

“Margie Dear, I think we need to talk, don’t we? There’s a bench right over there.” She pointed to where a bench sat right next to the sidewalk.

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Margie wheeled Julie over and oriented the wheelchair so that they faced each other with their knees touching. She put her hands on Julie's that rested on the arms of the chair. "Yes, we do."

"Have you been given Lesa's – I mean, your mother's – note yet?"

"Yes. Uncle Lenny gave it to me just a month ago now. I wrote you afterward, but I didn't want to be too explicit."

"Oh. It was Lenny she gave that chore to, huh? No. You couldn't be too explicit, no, definitely not, I thought that was what you had referred to though."

"Yes. It was."

"Your mother probably thought it might upset Roger too much. She mentioned having me do it, but we agreed that it should be someone younger who would be around when you got this age. How did it go? I mean, did it shock you too badly?"

"No. I figured it might be something like that."

"How did you feel about it though?"

"I was angry – well, really mad. Uncle Lenny helped me with it. He was great. He explained more about what Mom only mentioned in the letter about Sharon. That helped."

"So you're okay with it now? I read her letter, you know. I was there when she wrote it. It was another very hard thing for her to get through. Me too. She was heartbroken by the whole situation, but it wasn't that she didn't love *you* as much as anyone has ever been loved, Dear. She did love you so very much. But she felt as though she had betrayed Ray and been betrayed herself."

"I always knew that much – how much she loved me. Lenny told me the rest, but I like the way you tell me. You tell me like the mother you have always been to me."

"You seem to have remained your charming self through it. I do try to be like a good mother to you, even if I am too old for that."

Margie smiled. "Oh, Auntie. You are more of a mother to me than anyone else could ever have been. Mom died when I was so young, but you were always there for me. You didn't even dress me funny." She fairly bounced; her lighthearted sense of humor had taken over now.

"You gave me the pleasure of knowing what it's like to raise a child to be a magnificent lady my dear. I think I did an absolutely perfect job of it too, don't you?"

"I do. Absolutely I do. Aren't you getting cold now though?"

"Maybe a little, and they'll be missing you before long, so you better get me back I guess."

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Margie whirled her around with a joyous squeal, which made Julie sputter with laughter.

When they had settled back down to an easy stroll, Julie asked, “So Margie Dear, does Roger know yet?”

“No. Not yet.”

“Will you tell him?”

“Oh, yes, I have to. Mom left that to me, you know.”

“When then?”

“Tomorrow.”

They were in the rest home then. There was enthusiasm, even cheers throughout the lobby, at the sight of Julie coming in. Julie introduced Margie to the staff and a couple of her friends that “Doctor Margie Sorensen” had – as well as the few she hadn’t – previously met. Margie stayed to help Julie into the bed in her private room, and then strolled thoughtfully back to Roger and Ellie’s home.

“That took longer than it usually takes Ellie. You have an accident or something?”

“Oh, Roger.” She poked him in the ribs. “I’m a good driver – even wheelchairs. Auntie was just a little talkative still. I helped her get ready for bed. She was as much a mother to me, even more, than my real Mom, you know.”

“*Our* Mom,” Roger teased.

“Well, yes, okay, our Mom.”

Ellie entered the living area from the kitchen. “She is enjoyable to help, isn’t she?”

“Oh, yes. I love being with her.”

“So...” Roger hinted. “You were saying.”

“What were we saying? Wasn’t it concerning the cosmogony of Ray

Bonn?”

“Yeah, him and his microscopic processes replacing macroscopic events.

That was a theme of all his work, I think. Logical versus temporal.”

“You’re right. If you sum it all up, it is the same theme in all his work.”

Ellie added, “He did tend to explain away anything very spectacular that way, didn’t he?”

“Yeah. Flipping a coin to get a hundred heads in a row just to explain away what might otherwise seem to have been the miracle of his tremendous abilities. I guess, even transferring time dilation and

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spatial contraction to the individual electromagnetic interactions of everyday observations rather than inventing all of spacetime and attributing the observed distortions to a warping of that. He and mom placed irreversibility as mediated microscopic particle collisions rather than some incoherent theory of ‘emergence’ at the macroscopic level. He determined that cosmological redshift derives from the tiny energy losses in individual extinction interactions of light and matter, the rationale for the universal abundances of the elements, and the existence of a microwave background radiation. He accomplished all the big things using minute processes similar to how Darwin’s evolution works, huh?”

The three of them sat there a long while contemplating all those examples of Ray Bonn explaining away apparently indivisible, hugely significant phenomenon as the ineluctable consequence of some very simple diminutive, almost totally insignificant, process.

Margie broke the silence with, “So Bro, who better to steal ideas from than him, huh?”

“Yeah. I guess if you’re going to be a thief, why not diamonds?”

“Why not indeed,” she laughed with him. “So... I categorized all the cultural creation myths I was able to uncover; other anthropologists long ago discovered most all of them, of course. It turns out that the Native American ones all tend to acknowledge women as preeminent to the creation rather than being mere ribs stripped from incestuous chauvinistic brothers. Somehow that seems much more authentic to me.”

“Me too,” Ellie replied.

“Naturally it would,” Roger tried teasingly to marginalize the women.

“What came first, the rooster or the egg? No one says the hen or the sperm.”

“But there’s usually a raven involved, like that one that was sitting up there at the top of that fir tree by the lake all afternoon.”

“He likes to sit there,” Ellie said. “He perches up there a lot – it’s a good vantage, I suppose. I’ve enjoyed him for several years now, especially when Roger was gone so much of the time.”

“She was beautiful, preening and glistening in the sunlight,” Margie noted.

Roger laughed. “She?”

“Yes, she. The female influence.”

“Well, you didn’t steal that concept from Ray Bonn.”

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“Are you sure? You’d have to think that the female influence was by far the most important to him. Count the significant women in his life, and then count the men.”

“Yeah, okay. Let’s get on with your approach to the subject of these primordial myths.”

“So, every culture has their analogous myths that account for the creation of the universe up through the emergence of the human – well, the modern human – species.”

“Their own Big Bang and evolution explanations,” Ellie annotated.

“Yes, but more than that. In every culture individuals interpret their personal beginnings along these same lines until they are relevant to the situations of their own births and surroundings at the time.”

“Like the serene setting of that house down that private little street that is all gone now,” Ellie verbalized all their thoughts.

“Yes. It turns out that whoever you talk to, in whatever culture, things were better in the past. Things even tasted better with Mother’s cooking, the music of the time, less pollution, more of this, and less of that, all having contributed to the life condition having been better then, than it is now. And inevitably it is ‘technological progress’ that is the Serpent. That modern medicine has extended the life span, telecommunications have extended the scope of human communications beyond the wildest dreams of the previous generation, ... none of that compensates for what has been lost. According to virtually everyone faced with that argument in private conversation, the very soul of man has been sacrificed to all that supposed progress.”

“That’s pretty much universal, huh?” Roger asked.

“Yep, it is. And if you take that one generation at a time, sort of how we’re doing it now, there seems to be a convergence. That convergence seems to be back to a Garden of Eden before there was any technological knowledge at all, just innocent wonderful people ultimately spoiled by knowledge.”

“Yeah, but Dad wasn’t particularly suspicious about technological knowledge, for him it was corporate greed that was the culprit. And yeah, I think he got a lot of that from Ellie here’s grandmother. But unlike her, he saw his own father – technically mine too, I guess – as more of a victim of corporate greed than guilty for purveying technological knowledge. I don’t think he saw human greed as having been driven by technology. He saw it as exploitation of technology by perverted vestiges of evolutionary domination instincts of sociopathic

personalities that manage to wrest the controls of corporations with there being no democratic controls over them.”

“Yes,” Margie agreed. “However, I think his were unique insights. I am dealing with the general perceptions, not particular individual insights. Also, I’m not dealing with how this general situation comes about, but that it is perceived as having come about.”

“Yeah, okay. I guess if we get to this little paradise of Canyon Creek to which you give plenty of airtime in your thesis, the general perception definitely was that Adam Bonn as the purveyor of the technology was the one to blame. I guess that’s in much the same sense that Einstein was sometimes unfairly blamed for the nuclear political tensions of our own and earlier times.”

“Nuclear energy is definitely one of all those many technological breakthroughs that is perceived traditionally as appropriately blamed for our destroying the kind of peaceful world we had known before. But it was really just a difference of magnitude from its precursors, not of kind, and also that was only the perception and not the reality. There have always been wars, for example, only the justifications and excuses differ. WMDs and home security comprised but one of the possible sets of excuses for invasions to secure resources and limit privacy.”

“But now you two are off on the validity of particular myths, aren’t you? Surely that’s not what your thesis is all about,” Ellie inserted to divert attention back to the original discussion.

“Yes, thanks, Ellie. The perception – valid or invalid – does involve knowledge as in itself somehow an evil force, the Tree of Knowledge, et cetera. Certainly any forward-thinking person such as Ray Bonn, you both, and I can see that as a falsehood. But even the use of terms like ‘forward-thinking’ preclude discussion with those who hold to the more literal truth of the myth itself. *Forward thinking* is, in and of itself, the evil they hold responsible for the downfall of everything, so one could certainly not persuade them to believe that accepting a more ‘forward thinking’ idea would be a good idea. Therefore, any argument based on the presumption of the truth they argue against is doomed. This is what a religious argument becomes and is why they are all nefariously fruitless.”

“Yeah. It was Martin Luther who introduced the ‘trust your heart, not your mind’ argument, which is one of the more devious arguments to come out of a perverted mind – basically it argues that all argument, including his, is fruitless. What one was brought up to believe, or was converted to believe based on emotional reactions, is the truth itself.”

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“How come we can’t ever disagree on anything intellectual, Roger. It always comes down to having to disagree just because of sibling rivalry. You just can’t let your little sister have the last word, can you?” She laughed at least.

“Yeah, well. Don’t interrupt; I’m on a roll here. We know that people were burned at the stake for such disagreements about what we would consider inconsequential and irrational interpretational differences when, at the same time, both sides agreed on the underlying myths about whose interpretations they argued.”

“So, I’ve avoided such arguments as those involving exactly what the tree of knowledge pertains to,” Margie continued. “We still each have the perception that there was a time for each of us when love was innocent without the overtones of lust. Back then we could trust our senses to tell us what was right and wrong without book larnin’ or a course in Ethics 101, and life was more than just an endless work-a-day merry-go-round.”

“Yeah, we do tend to have that perception – particularly the despicable ones in that old Maga, Make America Great Again crowd.”

“We do,” Ellie added cheerfully, “but it seems to me that we have come to another paradise at the other end of the rainbow. I still worry about Tommy as any mother would, even at his age, but not like I did when he was my immediate responsibility. Significantly, Roger and I can now lie back and enjoy our lives without much pressure. So somewhere between the Garden of Eden and the hereafter there is this period of respite into repose. I think it’s called retirement.” They all laughed.

“But is that what you want? You both have educations that have to drive you to understand more all the time, don’t they?”

“Yeah, sure,” Roger responded for Ellie, “but you can understand without doing the discovering. I guess that’s what Dad did when Mom was wrapping up his opus – just following her work.”

“Can you?” Margie asked. “Can you really take such great pleasure in that? Dad wasn’t happy then as I understand it. Isn’t ‘knowing’ a whole lot more than just book larnin’, as they call it? Knowing is really having discovered it for yourself the way he spent his productive life. Why not write some books like Dad did, Roger? You have good ideas.”

“I really don’t know yet,” Roger replied. “But so far, I’ve just gotten out of the major league hassle. I’m tired. You have to have something *to* write if that’s what you’re going to do. I think Professor Thompson might like me to get back into it again looking at some of the aspects of gravity that Dad evidently got her off onto. She’s spent

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her life chasing an illusion she believes might still be real that has to do with higher dimensional algebras. That's kind of interesting to me and I imagine she might think I have some of Ray Bonn's magic."

"If it moves you, then you should go chase it with her."

"That's what I tell him," Ellie concurred.

They sat there silently in the darkness now, dusk having long since turned to total darkness except for the row of lights from the houses over across the reservoir.

Finally, Margie added, "That's what your father did."

"My father?"

"Well, okay, Ray Bonn then. But yes, that's what he did. He was a major voice in the last reformation."

"The *last* reformation? Wow! Is that in your thesis?"

"Yes, reformation. Mother was a product of institutions, but he wasn't. He was his own man. He studied only what he wanted to study – not a curriculum established to embellish some institution. It was knowledge for its own sake – the Tree of Knowledge, right from the roots. I think Mom was his Eve... or maybe it had been Julie even earlier. I guess that's who it was."

"You see the world in those terms, don't you, Margie?" It was Ellie.

"Well, maybe I guess I do. But this is also part of my thesis, not Ray Bonn's ideas, but Ray Bonn as symbolic of the recent reformation. He was in some sense a renaissance man, don't you think? Can't you see that? He broke with traditions and was propelled by the internet printing press. The data had been made available to anyone who wanted it, without institutional bias. He personalized epistemology in as a personal commitment to knowledge without indoctrination."

They all sat there in the growing darkness looking out over Adam Bonn's lake thinking their own thoughts. Finally, it was Margie who bounced up.

"You know, Bro. I am so tired. I've had a big day; I woke up on East coast time. I think I'll just go off to bed if it's all right. I look forward to tomorrow."

Ellie was up then and switched on a couple of lights. "We'll hear more about your ideas tomorrow then."

"The usual room?"

"Yeah," Roger replied without moving from his slouching position deep in the overstuffed sofa. "I put your bags in there earlier." And the discussion was over for the day.



## 5 FAMILY SECRETS

It was a pleasant enough morning. Margie met Roger in his workout room, did some treadmilling herself while she hyped on the ‘tremendous success’ he had enjoyed in his career. Then, of course, the questions of why he had decided to hang it all up when he was still at the height of his abilities.

"You could maybe have played on the same team with Tommy some time. That would have been nice, don't you think? Tommy would have liked it."

"Yeah? Why do you think so?"

"He told me once that it was his dream."

"Nah. It wouldn't have been good. Shadows have to get out of the way so you can walk on by."

She watched him for a moment and let it go.

Later they met again at breakfast overlooking the lake with the ravens doing their morning soar. A couple of bald eagles also soared high up over the lake, one plunging down to grab a fish in its talons as if it were an exhibition just for their appreciation.

Ellie asked whether ravens were a big part of Margie's thesis.

"No, just a coincidental reference. I like them though. This is really the only place I've ever seen them close enough to know they were ravens and not just big crows."

"You're really into this phase of your career, aren't you?"

"No, I'm not really. I could give it up."

Roger and Ellie looked at her somewhat surprised.

"My career isn't why I came up here now."

"Oh, I thought it was," Roger said. "You sent me that draft and I thought maybe it was fairly urgent that we discuss it."

"Well, I do really like getting your input, and Auntie's memories are very helpful too, but no. That isn't why."

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Ellie asked, "Why then?"

"I'm twenty-three. This is the age at which Mom met Dad in New York, remember?" Then as an afterthought, "Thank you for the great present by the way; you've always known what kind of geek I was, huh? I'm awful at following through on thank yous though, aren't I? But you knew that too."

"Yeah. I do recall they said that." Roger ignored the allusion to the present he only vaguely remembered Ellie having bought, and that only because of the obvious pleasure she had taken in having found something 'right down Margie's alley'. "Maybe we should have had a reunion in the Big Apple." Roger laughed thinking his comment rather humorous.

"No." Clearly Margie saw no humor in it. "It's just that evidently that had a lot of significance to Mom. She really fell head over heels for Ray Bonn, you know, even though he was still a very happily married man."

"Yeah, apparently."

"Well, she put together a secret for me for when I turned that age. She left it with Lenny."

"Leonard? Why not me? Didn't she trust me? I was her son; she bore me at least, and she certainly treated me as her son."

"Of course, but she didn't want to burden you with it."

"Burden? Oh, God! What now, Margie?"

"I don't know any easy way to say this; it wasn't easy for me." She paused only briefly and then got on with the chore. "I'm a clone too."

"Oh, Jesus Christ!"

"Margie, that can't be," Ellie blurted out. "We even knew the exact date on which you were conceived. By *both* Mom and Dad Bonn, in case you didn't know. It was a pretty funny situation actually, coming right after he'd found out about my mother not being his daughter. You *can't* have been cloned."

"Yes, I know all that. Mom told me in her letter, but I'm a clone."

"Another letter. I thought Mom did things in person."

"She wouldn't be here, so, yes, a letter."

Roger had recovered enough to get back into the conversation with his typical cynicism. "So she lied about getting pregnant."

"No. She did get pregnant then, with Dad's natural baby. Even the dates match."

"What then?" Roger paused for a moment. "Oh, God! That damned Sharon – at Thanksgiving."

"Yes."

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“She should be executed!”

“She was bad, yes. But Roger, it’s me here. You know how that feels. To think someone should be executed for having made you happen?”

“I know, I’m really sorry little sister.” He got up and walked over to where she sat to put his arm around her. “I love you just the way you are, I always have, always will. But what Sharon did was evil, nonetheless. Don’t you see that?”

“We all love you,” Ellie said lamely. “And always will.”

“I know. That’s good. I know just how awful it was. It killed both Mom and Dad. Sharon lives on in her own private hell – where she belongs, I guess. She knows that.”

Roger had strolled over to the window overlooking the reservoir. He stood immobile through much of Margie’s remaining account.

“I brought the letter. Mom said to show you. I want to show Auntie too.

Auntie said she was with Mom when she wrote it.”

Ellie asked, “When did she tell you that, Margie? Last night?”

“Yes. She had me stop at that park bench. She asked me if I knew the secret yet; she thought I did from the hint I gave her in my last letter. She knew when I was supposed to have gotten it.”

“We saw that last letter,” Ellie noted. “We wondered what you had been getting at.”

“That was it. I had just talked with Leonard the day before. He explained from what Mom had told him about how much she had wanted a child of just hers and Dad’s and how it had broken her heart to find out what Sharon had done. She had thought that she had finally realized her dream of paradise – the joining of hers and Rays genes into superwoman I suppose. When I came along, she thought I would be it, but then the dream was shattered for her.”

“What had Sharon done? I mean... well, how?” Ellie had a perplexed look on her face. “She couldn’t just transmute a normal zygote into a cloned one with different genetic makeup.”

“No. That’s not what she did. She saw that Mom was pregnant when she went back to be with Grandma and Grandpa Sorensen.” Margie looked over at Roger. “I have the same feelings you do, Roger, I want to call her Grandma and him Grandpa, but I guess biologically she is nothing to me and he is my sire. It really is awful, isn’t it?”

Roger just turned to look at her out of the corner of his eye. She saw a tear slowly making its way through the stubble of not having yet shaved today.

“So you’re Lesa Landau and I’m Ray Bonn. Is that it?”

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“I guess it is, yes, Lesa Sorensen. Anyway, when Sharon found out Mom was pregnant and that they would be coming back for Thanksgiving, it gave her time to get me in the works.”

“In the works,” Ellie repeated almost under her breath.

“Yes. You know how that's done. Your degree is in genetics, huh?”

Ellie ignored the reference to her own educational background and still looked confused.

“Well, she had me in zygote form already to plant in Mom's uterus at Thanksgiving. She even selected me for being a girl.”

“And that excuse of taking her to the clinic to do a more precise test was just a guise to get in there,” Ellie said in recognition. “So she destroyed the other one and put you in there.”

“Yes, but not exactly. She did it then, but she told me her intention was just to put me in there as an additional – sort of a nonidentical – twin. Sharon told me that when I visited her just the other day. She swears she hadn't intended to take the life of the other one. She's really conflicted about the whole thing – about you and Dad hating her even before Dad found out about me, and most of all about Mom hating her.” She gave a little ironic chuckle and added, “I guess Mom was the love of her life.”

“Oh, God!” Roger ejaculated involuntarily. “Now there's an excuse.”

“I know. It's sick. Sharon even knows it's sick. But there's something seriously missing in Sharon. She had no concept of what my life would have been like growing up with the real thing right beside me.”

Ellie asked the inevitable question, “How'd the other one die?”

“Trauma. It just happens sometimes. That's what Sharon said.”

“Collateral damage. That's what happens when you let Sharon Astor in your china closet,” Roger sputtered. “China gets broken. So what? It's replaceable.”

“I know. Mom shouldn't have gotten Sharon involved when she knew how Dad felt. She should have had you father, Ellie. Mom knew she should have after she found out about me.”

“When though,” Ellie asked, “When did Mom find out about it?”

“Not 'til after I was born.”

“Oh, God. So that's what the big fight and blowup was all about right after we got back from the Hall of Fame induction ceremony and had headed south to Stanford.”

“Yes. I guess Dad was holding me and teasing about how much I looked like him with my baldheaded knob and everything. He was so

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thrilled with me, I guess. That's what Uncle Lenny said. I guess he would hold me and coo to me, and all that sort of thing until he found out.

"Since Sharon didn't like him anyway, she said something to the effect of Ray's state of dementia and that I couldn't possibly look like him since I was not even related to him."

Margie sobbed then as she continued. "Julie was there and grabbed me while Mom tried to restrain Dad from killing Sharon. I guess he had knocked her down and Mom was trying to pull him off and was crying. Uncle Lenny said that Mom really believed that he would kill her. I guess he had an awful temper. Then he was shoving at Mom to get her away from him. He hurt her too, I guess. By then Julie had laid me in my crib in the other room and went in to help. Finally, I guess it was she who calmed Dad down a little since he didn't want Mom to even come near him."

"Oh, little Margie," Ellie said, putting her arm around her now.

"I'm okay. I didn't know anything about it. Sharon was unconscious when he quit hitting her and Julie. Julie called your father, Ellie, and had him come over. He looked at all their injuries. Dad had broken his hand I guess, and all the women were bruised, but Sharon had a broken arm and some broken ribs and a severe concussion. She was unconscious for quite a while. Uncle Tom took Sharon over to their place to recover enough for them to send her back home. Sharon said none of them ever talked to her again.

"Mom tried to convince Dad that she had known nothing about the situation if it were indeed true, and they both knew that it was true. They knew that Sharon had the capability and the insensitivity to have produced just that result."

"Did she convince him? About not having known, I mean?"

"No. In her letter Mom bemoans the fact that the one she loved the very most in life had come to despise her on my account. He told her he never wanted anything to do with her or me ever again, I guess."

"Oh, I don't think that is quite true, Margie," Ellie soothed. "Dad loved you very much; he used to hold you and even cooed to you after that. It seemed so strange to Roger and I that he would be so devoted as all that."

"Yeah. It was Mom that he never completely forgave, I guess."

"No. We could tell that he still loved her. She was a nervous wreck after that though; it really bothered her that Ray had lost so much of his memory and intelligence," Ellie contributed. "He certainly became disenchanted by the two loves of his life. That much is probably true. Aunt Julie told me that my grandmother not having

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told him about why her father had committed suicide had totally disillusioned him about her. I guess Auntie was the only one he felt had never let him down.”

Roger had walked off to another room. Ellie and Margie sat looking at each other feeling empty. Finally Ellie asked about Julie and wondered what time would be best for getting her this morning.

“It’s probably late enough now, don’t you think?” Margie looked inquiringly at Ellie and continued. “I’d like to go get her so I can tell her that I’ve told Roger. Then she’ll know the status when she gets here. She was concerned about that.”

“Yes, that would be nice. You go then. I’ll check on Roger.”

Julie was dressed and in the lobby in her wheelchair when Margie arrived. They embraced and then Margie just sat next to her in a nearby chair. Evidently Julie had suggested by her hand movement that the woman who had been talking with her leave, because she got up and meandered off.

“You told him, didn’t you?”

“Yes.”

“That’s good. The last secret is out of the way now then.”

“Not quite. I have one of my own.”

“Oh, girl!” Julie sucked in a breath, but then kind of laughed. “You are so like your mother.”

“Identical, actually,” Margie replied and gave a sort of chuckle herself.

Laughing again, Julie acknowledged, “I guess you are all right.”

“She was a good person, wasn’t she?”

“She was as good a person as I have known in my entire life, Margie. I can think of no one that it would be better to be exactly like. I was in love with Ray, of course, and I could never think of anyone as more what I would like to have in my arms. But, if it were possible, I think I’d have to say that Lesa was probably even a better person as far as being free from any guile. I loved her too, of course.”

“And you love me,” Margie appended questioningly to Julie’s statement.

“Yes. I love you more than anything in the world. You are my very own child.”

“Well, maybe we’d better get back to our home away from home up on the ridge overlooking the flooded paradise then, huh?”

Roger was quiet, but he hung around the others, seeming to enjoy their company even if silently.

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“He is so like Ray,” Julie whispered to Margie at one point.

“Identical,” she whispered back.

After a pleasant lunch Margie said, “Listen, this family has had too many secrets that have been kept for way too long. I have a couple more that I just learned about. Neither Mom nor Dad was aware of these. I’d like to get them out to rid myself of the burden. Keeping secrets is an awful thing.”

Roger seemed anxious. “Oh, God, what now?”

“It’s okay, Roger,” Ellie said, seeming concerned. “We’ll get all of this out of the way and then we can forget it.”

“That’s right, my charming brother,” Margie said. “I just want you to know everything, so I’m going to tell it to you.”

“Yeah,” Roger said. “I guess that is a good idea. None of it will ever be forgotten, will it?”

“Okay. Well, I had stolen a copy of that DNA analysis that you and Ellie had done before I was born. It was up in that file cabinet upstairs in the old house.”

“Margie, how could you? That was really private. I burned that report a few years ago by the way,” Roger said.

“I know. I was just thirteen or so and it interested me. I have never showed it to anyone. I brought the copy I had made with me to give back to you. You can destroy it too, if you like. It’s the only one in existence.” Roger was irritated into a sullen silence again.

“So,” Margie continued, keeping a wary eye on Roger. “After Lenny gave me the letter, I had a DNA analysis done on me. There is no trace of any DNA relationship to you. The sequences are all different – all of them.”

“Yeah, of course, what did you expect?”

“That. But I wanted to be absolutely sure before I went to see Sharon.”

Julie asked, “Was Sharon expecting you, Margie dear?”

“Yes, she was. She said she had been expecting me since I turned twenty-one. She thought Mom would tell me then. First, she had thought eighteen, but then when I didn’t come, she thought twenty-one. She was starting to think I would never come, but she thought she had known Mom better than that. She had a bunch of information ready for me, but she knew she had broken a few too many secrets already to approach me first or leave it for a third party to find. She had it addressed specifically to me.”

Roger struck out bitterly. “Like, here’s why I killed your sister and forced a pregnancy on your mother without her or her husband’s consent?”

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“No. There were no excuses. Just information. She had a bunch of papers for me that were all bundled up and sealed with instructions for delivering them to me in the case of her death.”

“A bunch of papers? A diary or something,” Ellie asked.

“No diary, although there was a log of events. I have that here. I’ll show you. But she had my birth certificate – I had never thought to try to find one. Here it is.” She laid it out on the table facing Roger.

“Alexander Swensen?”

“Yes. My biological father of record.”

“Oh, God. And Margarett Duboise? Was that Mom’s mother’s maiden name?”

“No.”

“Well, who in hell were Margarett Duboise and Alexander Swensen then? Knowing Sharon, I’m guessing they may be real people.” He paused, looking down at the certificate, confused. Then he looked up. “Boston! What the hell is this, Margie? This isn’t you.”

“Well, in the legal sense that Ray Bonn might appreciate, it is me – legally that’s who I am. And it’s closer to the actuality than the fiction we had been raised to believe was the truth.”

“Oh God! Sharon forged that, didn’t she? But why Boston?”

“Well, whatever contempt you have for Sharon, her intelligence is at least beyond dispute. Do you remember that she convinced Mom to have me at home?”

“That’s right, Dear,” Julie inserted. “She did. I worried about it something awful, but Lesa thought it would be all right. Sharon knew what she was doing and so on.”

“Yeah. Sharon knew what she was doing and knew it needed to be hidden.”

“Yes, exactly. So there’s no hospital report here in Washington, but there is one in Boston. It turns out that there was a homeless, drugged-out waif who had a baby the very next day. Notice the date; you’ll see it’s off by a day. The girl did not know who the father of her baby was.”

“Yeah, so what happened to the girl?”

“Margarett Duboise didn’t make it.”

“Dear God, child,” Julie exclaimed.

Roger and Ellie sat appalled looking from one to the other.

“Her baby had been up for adoption, and it turns out she didn’t make it either.”

“Oh God! I feel like heading for Boston right now and killing Sharon with my bare hands,” Roger exclaimed. “I hate that woman.”



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“Too late,” Margie said, glancing over at Roger. “She’s dead. And... Margarett Duboise wasn’t a patient of Sharon’s by the way in case you were worrying about that, but she had kept tabs on her pregnancy all the same through a close associate and friend of hers. She convinced her friend to suspend filing the associated papers until Sharon returned. In the meantime, she found a death report of a homeless person of Norwegian descent.”

“So, according to the narrative that Sharon created for my life, I am the illegitimate daughter of a Norseman like my biological grandfather and an unfortunate street child. I just happened to have been adopted as a mercy mission of a certain Mr. and Mrs. Raymond F. Bonn.”

“You were *not* adopted!”

“That’s just what Dad told me, remember,” Ellie said seeing a bit of humor in the similarity of circumstance. “And you got mad at him and asked him if he’d rather you were not his son.”

Roger ignored her, but Julie looked intently at Ellie, amazed.

Margie had placed the adoption papers out on the table. “This, Brother, contains the facts as the Supreme Court of these United States will accept them. I’m sure they won’t care what you or Ray Bonn might think about them.”

Roger looked at the papers. “Do you believe that these are Mom and Dad’s signatures, Auntie?” Roger pushed the sheets over toward Julie.

“No, of course not Roger. Your Dad would no more have signed that than killed somebody – well, it’s much less likely. He almost killed two people, but he would never have signed that.” She chuckled again. “That is just another artifact of Sharon’s forgery, and she was good at it.”

“Yeah, well, it can’t stand.”

“It is standing, Roger, and it will continue to stand forever. It gives me legitimacy and the freedom to be who I am genetically.”

“‘The freedom to be who you are genetically,’ what in the hell is that supposed to mean.”

Margie’s cell rang. Margie looked at it and answered as she got up from the table. Roger continued looking at the papers before him with Ellie looking over his shoulder. Julie reached over and grabbed the adoption papers since they were now inspecting the birth certificate.

But they all noticed that Margie answered, “Oh hi, Love.”

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They looked up at her walking away into the other room and then from one to the other with an “Oh, so!” expression on all their faces. So Margie had fallen in love.

Ellie got up to walk toward the kitchen. She stopped by the windows looking out into the broad expanse. Roger watched her and Julie watched them both.

Nestled there in Julie’s brain, Ray watched too.

“It never ends, does it? It’s just déjà vu all over again,” he said.

Julie smiled. His presence was one with which she was familiar. They talked often – this model of Ray Bonn that lived inside her head where he had involuntarily installed himself, part of himself, more of him than hung in the pendant around her neck.

“Yes, it does. It ends here,” she responded in a faint whisper.

“What?”

“Oh nothing, Roger dear, I was just talking with your Dad.”

Roger smiled quizzically. “So how’s that work?”

“Didn’t he ever mention his ideas about how minds and brains are not necessarily one-to-one?”

Ellie had walked back over to stand by Roger. “I think I heard him and Mom converse about something like that once. Do you remember, Roger? Before we were married.”

“No, I don’t.”

“Well, you know who William James was, of course.”

“Yeah.”

“Well, that was what he maintained, and Ray had his own take on how it worked. We have models in our heads of how the ones we love react to events, how they think. Like if you and Ellie were separated, and someone told you something that had happened to Ellie, you would know what she would have thought in that situation.”

“I would if it were Roger,” Ellie said. “I know how he thinks. I know what upsets him and what he likes.”

“And how he would say, ‘yeah’ or ‘Oh, God’ in a given situation?” Julie teased.

“Exactly,” Ellie echoed as she poked Roger.

“Well, when the ones you love die, it’s just like that, only more intense. Sometimes you even see them. But just now, Ray said, ‘It never ends, does it? It’s just déjà vu all over again.’”

Roger laughed. “Oh, yeah, and what did you say?”

“You heard her,” Ellie said. “She said, ‘It ends here.’”

“‘It ends here’?”

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“Yes,” Ellie preempted the answer, “The last of the only child twins.”

“God. Margie and I are not ‘only child twins’.”

“No, of course not, Dear.”

Margie had come back in talking happily to whomever was on the other end of the communication. “Yes,” she said into the phone. “Talk to them.” She handed the phone to Roger.

Listening to the phone, Roger looked surprised. “Tom! Hi. How’d you do last night?”

Roger was silent then – longer than one would think it would take for a response to that inane query. Then finally he said curtly, “Yeah, okay. Here’s your mother.”

Ellie took the phone anxiously, “Hi Honey. What good news do you and Margie have for us?” After a thoughtful pause she smiled. “Oh, that’s wonderful, Tommy.”

“Yeah, just wonderful,” Roger mumbled cynically. “Just so damned wonderful.”

“Yes, of course. We love her,” Ellie continued talking into the phone. “We know all about it now. Okay, I’ll give you back to Margie now.”

And she did.

Margie walked off with her phone in hand, talking cheerfully – making plans.

Roger seemed lost. He looked over at Julie. She was smiling. But he noticed that she had slumped back in her chair. He quickly put his hand on her wrist. There was no pulse.

She was dead.



# PART II



## 6 A SAD OCCASION

Black umbrellas in the rain – it seems to go with such occasions. They were all out and pointing skyward, mostly black ones, unfurled and dripping. Ellie shared one with him, or rather he was ‘partly’ under hers, water rhythmically drenching his left shoulder. Tommy was to his left, Margie between them; with Tommy beneath Margie’s umbrella, close enough to her that the drips from that umbrella that was higher than Ellie’s because Tommy was taller than Roger, merged into rivulets with those of Ellie’s to totally soak his suit coat. He should have brought an overcoat – a raincoat for god’s sake – but who would have thought such an accessory would be needed in California this time of year. Well, it was the Bay Area after all; he should have known. He hadn’t, Ellie hadn’t, and none of the rest of the Bonn family from the Northwest had. So, here they were under the borrowed umbrellas watching as solemn words were spoken concerning Dean Edward Bonn.

It seemed strange to Roger now that there should be a burial as against an urn of ashes to be thrown into the wind to drift down over a dam somewhere, out across a desert, or onto ocean waves. What an ordeal this was instead. He guessed it had been all Lisa’s decision guided by the mercenary preferences of the funeral home director. Perhaps it was a named ‘place’ for grieving that she wanted. The role of the preacher in the ceremonies at the hall and up here at the cemetery must have been what she had wanted as well. For closure – he guessed that was what it was called – that was necessary for some, like the ‘closure’ of the universe that never seemed a very real constraint to him just as it had not for his father. Well, this whole situation of Eddie’s death wasn’t what Lisa had wanted, of course, but the ensuing charade was what she must have thought appropriate to such occasions now that the circumstance had been thrust upon her. Clearly, she was inoffensively Unitarian, but still... What would Ellie do?

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“Isn’t that Professor Julie Thompson over there?” It was Ellie’s whisper. “Yeah.”

“My, hasn’t she aged?”

He had noticed Julie earlier, but he looked again. “Yeah, I guess, but haven’t we all?” As he gazed now at Julie’s face, he did notice the wrinkles over and above the freckles he remembered; other memories of her took his thoughts to when she had been his physics professor for several of the courses he had taken as a physics major. It was his senior year in mathematical physics that he remembered now. There was always an enthusiasm the other professors had lacked; he had for a long while been drawn to continue on in physics rather than pursuing the more lucrative baseball career. His father, Ray Bonn had made either option a viable alternative for him; but alas, one can proceed along only one worldline through spacetime. Watching professor Thompson now he could tell that she still had it and significantly that it still induced in him an urge to understand more about the natural laws that govern the physical workings of the universe.



Ellie’s breach of silence must clearly have heralded that the ceremony was mercifully coming to a close. Roger had not sensed the denouement except that now there was an abrupt segue in tone with the announcement of an invitation for all present being welcome to a reception with refreshments that would be served at the Bonn home.



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‘Bonhomme’ usurped his thoughts – shouldn’t that have some significant meaning in this context? He stood there in abstraction, trying to google up a definition in his mind: *faire mon petit bonhomme dechemin*. The ‘good man’.

The crowd began slow sanctimonious strolls away from the graveside. Ellie was hugging Lisa commenting on what a nice ceremony it had been. Lisa thus faced Roger now, tears flowing in a gush from clenched eyes. He looked away. Little Eddie – well Edward Junior – was there with a woman Roger had never met, but whom he assumed to be his latest wife; Roger shook their hands silently and moved on.

He watched Tommy and Margie going off a different way, arm in arm, too intent upon each other.

Jamie – the eldest Bonn brother – approached. Judy was drifting off toward Ellie and Lisa.

“Where’d you hole up last night?” Jamie asked.

“Marriot.”

“Tom and Margie too?”

“Yeah.”

“Judy and I and the kids are at the Hampton. We got in last night about ten.”

There was an awkward silence – the kind, in the middle of which, Roger often found himself. Then Tommy was there too, having walked off from Margie to join his father and uncle. Jamie asked how long Tommy had before he had to get back to the “Peahens”, a term of endearment Roger recognized for the Double A Peacocks minor league baseball team. But it was getting tiresome as an attempt at humor even to Roger.

“Sunday,” Tommy answered his uncle. “I’ll play on Sunday.”

“It looks like you’re having a very good season.”

“Not too bad.”

Roger drifted off. People looked at him wanting to make contact he suspected. He pretended not to see them as he pondered some of the inane comments on headstones. So “They loved to serve,” but how had the rest of their game gone he wondered. Or “On to his so well-earned reward.” Yeah, eager for that one. What would Lisa see fit to have inscribed on Eddie’s ‘marker’ he wondered. What did he himself think? What would he consider to be an appropriate summation if he had had to make one? Dean? Devoted husband and father? Middle Son of Ray Bonn? Physicist?

“Roger, loosen up.” It was Margie.

He turned to face her with a face as blank as he could make it.

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“It’s friends and family here now, you know.”

“Yeah.”

“Hello Roger, I was hoping I’d get to speak with you.” It was Julie who had walked up with Margie – Professor Thompson, whose classes he had so much enjoyed way back so long ago now.

“Yeah, me too.” He said it, but neither he nor anyone else could have been convinced of the truth of the statement by the way it was said. He did have a way of saying things that way – maybe it was too many athlete interviews, with the content of their statements having no independent standing, mere instinctive reactions to anticipated questions.

Margie strolled off then, off toward Tommy who was now talking with Jamie and Judy’s twins and their husbands.

“You’ve had a brilliant career. Baseball is the only sport I’ve ever followed at all and that was only because of your father.” Then after a pause, “and you. I’ve missed it since you retired. But I suppose Tommy will be in the majors before long.”

Had she really followed baseball? He wondered. On the few occasions when he had encountered her one on one, which she had more or less arranged on most of those occasions back when he had studied in the department, she had always seemed so totally consumed with her investigations into theoretical areas of physics. On each of those occasions she had turned the conversation to gravitation and “what Ray Bonn suggested I investigate” decades before. That had been how she had tried to pique his interest in the field he supposed. She had. Now there had elapsed two more decades. And still he suspected that rationale for another explanation for gravitation was her preoccupation.

“I think so. Yeah.”

“Have you enjoyed your retirement so far?”

“No.”

“No?” Julie did a double take. She thought too long before finally saying, “I think your father’s life ‘began’ with retirement. He finally had time for the physics he loved.”

“Till I came along,” Roger replied, more to dissuade her from the path less taken than to be rude, but it was rude. He knew that.

“Oh Roger, no!”

“Yeah.” But it did not feel right to disillusion someone he admired.

Then Lisa was there teary-eyed with her arms around him now. Over her left shoulder he watched as Julie walked off bewildered. And he couldn’t think of a damned thing to say to Lisa.

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“Remember the good times we had when you and Ellie were with us your first year down here before...” She began to sob.

“Yeah.” It was all there was to say. Margie be damned. “Yeah,” was very often all that there was to be said by this man; people could put meaning into it any way they could. He could not explain it to them any better than that.

Finally he and Ellie and the ‘kids’, as Ellie insisted on calling Tom and Margie, were in the car on their way to the reception. Ellie and Margie chatted with Tommy getting a few words into the mix about those who had been at the funeral and graveside ceremonies.

“Jamie – and Judy too for that matter – don’t look too well.”

“No. Is Judy through her chemo yet?”

“Not sure, but god, she looks awful.”

“How old is Uncle Jamie now?”

“Upper seventies isn’t he, Roger?”

Roger became aware of the conversation and responded to Ellie’s questioning, “Yeah, I guess so.”

“You know, it’s high time you dedicated some time to studying the dictionary, Roger. There are about ten thousand synonyms for your use of ‘yeah’ in there. It would be refreshing to hear you use one sometime.” Margie was riding him again.

“One’s daughter-in-law ought not engage in such nonsense.” It was all he could come up with; he put it forward as one of the “synonyms” that would “refresh” her.

“I thought we were siblings,” she retorted.

Ellie ignored their usual banter to ask, “What did Julie want?”

“I didn’t think she wanted anything. We used to know each other.” Then after a moment, “She was just acknowledging that I still exist in one form or another.”

“She does want something,” Ellie insisted.

“She wants the gravitas of the surrogate Ray Bonn.” It was Margie butting in to needle him again. “She wants him to collaborate with her on gravitation.”

“Enough already. What do you know about it? Or anything else for that matter.”

“Quite a bit; I have an advanced degree. But yeah, okay Bro, I know nutting.”

“God!”

“Easy Pop,” it was Tommy with a threatening tone to defend the love of his life.

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They were at the Dean Edward Bonn mansion then. They must have taken a roundabout route Roger thought because many of those who had been at the graveside ceremony were already there. But he guessed time passes even when you're reading gravestones.

Professor Bender who had been a classmate of Roger's greeted them when they first walked through the front door of the Dean's Mansion.

"It's been a long time, Roger."

"Yeah, same here. How you been Ben Bender?"

"Well, very well. Hi Ellie. You look as charming as ever."

While Ellie still smiled appreciatively Roger interjected, "What are you working on now Ben, sub-zero memory devices?"

Ignoring his insincere inquiry, Ben observed, "You're soaking wet, Roger. Why don't you take that suit coat off and let it dry?" He reached, laying a hand on Roger's shoulder, a touch from which Roger shrank

"It's fine."

"If we hang it in the other room, it'll dry while we talk."

"No."

It had been this way when they were undergraduate physics students Roger remembered. There was always something pushy about the way Ben tried to appear helpful that Roger had detested. Now he was probably pushing to replace Eddie as Dean of the department; he was obviously familiar with these surroundings.

"So what are my prize pupils talking about now?" It was Julie Thompson; she had a glass of wine in her hand.

"Wetbacks," Roger replied getting a response in ahead of Ben. "Ben is preoccupied with wetbacks entering his domain. Probably still a member of the young Republicans on campus ready to branch out and launch his candidacy."

"That isn't even funny," Ben said. "It's racist." He walked off.

"Actually, it was funny," Julie said as she touched his wet shoulder and back, obviously amused by their long-term rivalry. "You do indeed have a wet back and he's going to be Dean now; you know."

"Don't let him; you are much more qualified."

"But he wants it, and I don't."

Then Margie was there with her glass of wine. "Hi Julie."

"Wow, have you grown into a beautiful lady."

"Smart too," Margie added, seeming to only fake audacity – if that's possible Roger thought. "You and Roger collaborating on gravitation yet?"

"Oh, God! Margie will you just button it up and disappear?"

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“Like a speeding bullet,” she sniped and disappeared.

“Margie and Tommy seem to be on good terms,” Julie stated watching Margie ‘disappear’.

“Yeah. Anticipating marriage.”

“To each other?”

“Yeah.”

Julie showed amazement, asking, “How can that be? Aren’t they...” she hesitated.

“Apparently not – by blood anyway. Lesa Sorensen and Ray Bonn were not your usual couple.”

“Oh,” was all that Julie seemed to be able to come up with until finally, “And you’re not too happy about it?”

“Yeah. How do you say, I haven’t yet come to terms with it.” They both laughed. “And *that* is not funny.”

“I see. I think we have some catching up to do other than just on the topic of gravitation.”

“Forget the gravitation comments. That’s just my family tired of me being bored.”

“I’m tired of you being bored too,” Julie laughed, “and I just found out about it. It is just wrong for you not to enjoy your well-earned retirement. Please come to see me in my office tomorrow, would you? ‘The time has come,’ as the walrus said. ‘To talk of many things’.”

“I’m not ‘the carpenter’ my father was and I’m not sure of our plans yet, but I’ll try to get up there if there’s time. I’ve tried to follow some of what you’ve been doing by reading your articles in the journals.”

Then Lisa was there with a swarm of wannabe mourners that followed her everywhere this day. Julie nodded to Lisa deferentially and left – too quickly Roger thought.

More inane conversations. His retirement, achievements, Hall of Fame possibilities, offspring, God! He wanted to be back up on the ridge overlooking the lake with its boring reflections.

Then after a bit with dismissals Lisa and he were alone,

“Ellie tells me that you might want to spend a few days on the ‘Farm’ here. I hope you know you are more than welcome to stay here. It’s already getting lonely.” She began sobbing but soon got it under control. “You could use Eddie’s office,” a few more tears. “Please think about it.”

“Yeah, okay. Thanks, but I really have no plans to stay. We’ll be leaving tomorrow.”

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That damned Ellie! *She* wants me to stay, he thought. Why? I work perfectly fine by myself without the humiliation of knowing how out of date my inadequate education really is.

“You better stay.” It was Margie again.

“Dammit Margie. Keep out of my business.”

“It’s my business too, we’re doubly connected.”

“No, we’re not.”

“We will be pretty soon.”

Lisa was walking away now, but over her shoulder she caught his eye, “Do think about it Roger. I would enjoy it very much.”

And so it went till most everyone was gone. He spent much of the rest of the afternoon out walking across manicured lawn that was still wet from the earlier rain and over bridges between koi ponds and shrubbery, avoiding as many human contacts as possible. He encountered Junior that Roger remembered mostly as “Little Eddie”. He too had been out avoiding the crowd, just now sitting on a secluded bench behind some shrubbery smoking with a glazed expression. The woman Roger had seen with him earlier was not with him now. Roger smiled a greeting, acknowledging that crowds are not really very comforting at times like these, were they? He sat down beside his nephew – if that was what this man, several years his senior really was – noting that Junior reeked of alcohol.

“You all right?” Roger prodded gently.

“You mean other than having just gone through my third divorce, being disowned by my children of record, and having lost another job? Oh yeah, I’m just fine,” he slurred sardonically.

“Oh, I’m sorry, I hadn’t heard. I’m sort of out of a job now myself and my family seems a bit tired of me right now as well.”

“Maybe, but you had the Ray Bonn luck and money going for you anyway, didn’t you? All I ever had going was the Eddie Bonn effect and that ain’t very damned effective.” He paused. “Turns out it’s no damned good at all.”

“I saw Elisabeth earlier,” Roger inserted to change the tone, “but I didn’t get a chance to speak with her. How’s she doing?”

“Lil Liza Jane? She’s all right; she don’t never do nuthin’ wrong, ever.”

Roger could tell that neither of them needed this conversation, so he got up wishing Junior well and expressing condolences for his father’s death.

“Ah,” Junior mumbled, “that don’t change nothing-a-tall’. He wasn’t worth the ceremony.”

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Roger held back any reaction and walked on. As he rounded a group of trees a little closer to the house, he met Elisabeth coming toward him with the woman Junior had been with earlier.

“Oh, hi Roger. I haven’t gotten to speak with you yet. I talked with Margie and Tommy. They seem very happy.”

“Hello there Lil Liza Jane,” he quipped smiling pleasantly.

“You evidently found Junior,” she laughed. “I hate it when he calls me that. Where is he by the way, we’re looking for him – more or less as we speak.”

“He’s over there on the bench behind those shrubs, preferring loneliness, I think. Seems a bit...”

“Yes. He is... more than a bit. He’s smoking too, isn’t he?”

“Well, yeah, I think so. But how have you been, I haven’t seen you in an age.”

“No, I guess not, but we and our boys have seen a lot of you,” she smiled. “We’re going to miss watching your achievements on the field. I guess we’ll be getting to watch Tommy before long though, won’t we?”

“Probably, yeah. But what about you and your family?”

“Well, the boys are both out of school now, but Edward Three has gone on to get his medical degree. Bob’s doing well, wishing he could retire pretty

soon, but that doesn’t happen at our age in his field.”

“Yeah, I guess not. I should consider myself lucky I guess.”

“Surely you must.”

“Oh yeah, usually. I guess I better get back to my family and let you rescue yours.”

“If only I could,” she said as she, and the silent woman who seemed a bit intoxicated herself, walked off in the direction Roger had indicated.

Most of the guests had departed by the time Roger entered the house. Jamie and Judy and their twins and spouses were just exiting the front door so that only a wave was required. Margie and Tommy accompanied the girls to their car. Lisa just stood in the doorway with Ellie, watching.

Finally the Roger Bonns left too.

No one really wanted dinner after the spread of snacks so they went directly to their rooms when they got to the hotel. Roger and Ellie to theirs and Margie bunking with Tommy. Oh God!





## 7 RE-ESTABLISHING CONNECTIONS

As he walked the length of the second-floor hallway in the ‘old’ physics building Roger could see that Julie’s office door at the end of the corridor was open. Walking that entire distance there was only one person who had exited one of the offices and entered another. It must be a quiet time of day and year for the department he thought. He remembered animated conversations and students scurrying along this very hallway. But not today.

He tapped on the door jam. Julie looked up, hopped to her feet, and fairly scampered to greet him, all smiles.

“Oh Roger, I am so glad you came after all.” She threw her arms around him when she approached, a gesture she apparently had not dared yesterday.

Taken aback Roger blurted out, “Whoa.”

“Oh, sorry, but I have looked so forward to getting to talk with you ever since I heard that you were retiring. It is truly good to see you. Sorry about the occasion, but seeing you again is grand.”

“Yeah. Likewise,” he said as she proceeded to shut the door behind him and then receded to her side of the desk.

“Please sit down and tell me about *you*. You said that you weren’t enjoying retirement. That makes me so sad. I hope there isn’t anything physical. Is it the situation? What?”

“I don’t know. Physical? Well, you can’t play ball forever and I could tell it was fading. I’ve had a lot of fun in my life, but it isn’t like I’ve done anything significant. And now... Boom! It’s over – not like anything you could imagine.

Nothing.”

“Significant? Surely you’re joking Mr. Bonn.” She laughed her infectious laugh, thinking of Richard Feynman’s book with a similar title. “The hall of fame is no longer significant? Ray once told me

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that you were the only reason he would accept induction – that you demanded it of him. You’re not looking forward to it for yourself?”

“He told you that? When?”

“Oh, I sent an e-mail to congratulate him after his retirement ceremony when you and Ellie threw out that pitch. He said he only suited up that day to enable his nomination to Cooperstown. I told him how significant I thought that was and he replied that he would only accept it because you demanded it of him.”

“Yeah? Did you two communicate often.”

“No. But it never went more than a few months without an e-mail back and forth until that last year I guess.”

Roger thought about that phrasing of ‘that last year’ silently for a bit.

Julie watched him. “I have to admit that I did sort of fall in love with him when he was down here on the farm that one quarter, but he was between Helen and your mom and didn’t pay any attention to me.”

“Mom thought he did.”

Julie looked surprised. “He didn’t. Your mom was the love of his life.”

“Yeah.”

“But I kept up on your family, so I’m a little confused by your suggestion yesterday that Ray and Lesa were not the ‘usual couple’. Can Tommy and Margie not be directly related? How on earth can that be. Is that what has you on edge?”

“On edge? Like ready to tip over?” He managed a smile.

“Yes, like that,” she said.

“Yeah, I guess. Come to find out, they are not DNA-related, but like you said, who would believe that. Our family has had so much scrutiny I was hoping for some peace of mind during my retirement. And now this.”

“Up there on the lake seems like the ideal place for peace and quiet. I’d like to see it some time. Ellie has told me how beautiful and serene it is up there.”

“Ellie huh? Well, I’m sure Ellie would like it if you came up. I would too of course, but truth be told Ellie actually gets lonelier than I ever would. I sort of like all aspects of being alone.”

“Ellie and I do talk now and then. She’s invited me up, but it’s not worked out – at least yet. Ellie didn’t mention upcoming plans for Tommy and Margie though. But you no doubt wouldn’t welcome hearing what we talk about most often. It isn’t Tommy and Margie.”

“Well, as far as Margie and Tommy – just to set the record straight

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Margie found papers validating that she was adopted to cap that topic off.”

“Adopted! Validated? Is that why I didn’t hear any more that last year before Ray and Lesa,” she paused, “passed. I suppose it was being kept silent so no one would know? So now her natural affection for Tommy is legally, biologically, or whatever, legitimate – at least not taboo – and his for her.”

“Yeah, I suppose. I think they found out long before we (or at least I) was told. I think my family has had to run without me for so long that their not telling me anything is just part of my empty life.”

“Well that’s great, isn’t it? I mean, that they can love who they love without having to hide anything.”

“They seem to think so.”

“You don’t? Why not if they love each other?”

“I’m tired. Yeah. Maybe that’s it.”

“So, do you want to know what Ellie and I *do* talk about?”

“Not really.” He smiled at least.

“Gravity.”

“Gravity? What does Ellie have to be sad about?”

“Well, she worries about you – especially now that you’re retired and seem so bored, ‘jaded’ is a word she has used. She said she catches you working with some equations and plotting curves that seem to her to be ideas about gravitation. And who better to ask about it than me? If there’s a chance we could bring some resolution to that issue, you know it would be wonderful from my perspective.”

“No one else thinks there’s anything to resolve; it’s been done – twice.”

“Your father thought it needed to be reinvestigated.”

“Haven’t I walked in his shadow long enough?”

“He’s in *your* shadow now.”

There was a long pause that seemed to consume them both. Finally it was Roger who broke the awkward silence.

“Have you quit working on it?”

“Well, I’m sure you know that there’s no federal money allocated to research into that area. But no. I’ve never completely let it go. I probably spend too much time on it. It’s sort of like Fermat’s last theorem. Actually it’s a *lot* like Fermat’s last theorem. It’s been solved – twice as you say – but not in a really satisfying way from my perspective at least. Fermat made that damned comment in the margin of a book claiming to be able to prove it although the proof wouldn’t fit in the same margin as his claim – but still, one would have to think his proof – if he actually came up with one – had to have been much

more succinct than Andrew Wiles' proof hundreds of years and pages later. Either Fermat lied or no one has found his simpler proof.”

“Yeah, but you know what? I think Fermat was somewhat of a huckster. There’s that apocryphal tale of him receiving an envelope in the mail while some prominent mathematician was visiting – was it d' *Alembert*, no, he didn't come along till much later did he? – anyway, that had to have been a con job don't you think. Supposedly he opens the envelope to find that someone wants to know whether a particular twelve-digit number is prime. Then, bam! On the spot he comes up with two six-digit factors that impresses the hell out of his guest.”

“Yes...,” she answered expectantly.

“God. That never happened. When I was in high school, I wrote a program for optimizing the speed of a fastest factoring algorithm and I ran it on a twelve digit number and it ran for hours on what was then considered a high speed computer – well, it was high speed at that time.” He laughed and continued, “It was just part of Fermat's attempts to spread unwarranted fame. I'm sure that he just multiplied two six-digit prime numbers together and remembered the values of the factors. Then he addressed a letter to himself asking the rhetorical question and mailed it to arrive while his guest was present. Anyone could have done that – it was not an act of genius; it was fraud. At least that's what I think.”

“You are so like your father. He wouldn't believe anything he couldn't prove it himself.” She laughed and Roger joined in the laughter. She continued. “Whatever you believe about Fermat and his marginal behavior, it was all too similar to what your dad did to me. He suggested, more or less as a marginal comment, that I should look into gravitation as some sort of extension of electromagnetism that is antithetical to Einstein's conjoining it with relativity as a geometrical rather than a physical reality.”

Roger laughed. “My dad really fucked you over, didn't he?”

Julie replied angrily, “No, he didn't!” Then after a pause, “Not nearly as much as I would have liked.” She flushed and excused the comment after seeing Roger's reaction. Then she added, “Actually, I think he made the comment as a special favor, a concession I suppose. And he's the best thing that didn't ever quite happen for me.”

“Yeah, sorry.” Then back on topic, “Mom said he told her that the solution might involve octonions. Have you gone down that path?”

“Not far. Have you – gone down it very far?”

“No. The math is a little heavy for me.”

“So you *are* looking into gravitation, aren't you.” She laughed at his implicit confession.

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“Yeah. I’ve also wasted time on Fermat’s last theorem if that consoles you at all.”

“So what path have you headed down?”

“The electrostatic extension, just using classical field theory.”

“It’s intriguing, isn’t it? But I’ve never managed to get very far down that path either.”

“Well,” he said, “I did satisfy myself that electrostatics could be formulated to accommodate self-energies without singularities anyway.” Roger was becoming a bit animated. “That’s got to be a first step in the right direction don’t you think?”

“Yes, I do think so.” Her eyes seemed to twinkle now. “Using charge density distributions rather than point charges and Dirac delta functions, right?”

“Yeah.”

Then out of the blue, “Wasn’t Lesa pregnant?”

“Now there is a path you definitely do not want to go down.”

“Was she able to hide it from you – I mean the fact of her *not* being pregnant?” That was followed by what could be called a pregnant pause. “Okay, I’ll leave it, but talk to me if you ever need to. I don’t have enough friends to betray secrets.”

“Yeah, okay, but no. That’ll work itself out over time; I just don’t like thinking about what the press will do with it. I have looked into some aspects of generalizing relativity without incorporating gravitation as geometry, trying to get back into some of the things Dad was starting to talk to me about.”

“What in particular did he talk about?”

He ignored her question for the moment. “Were you close with Eddie?”

Why won’t you take his place?”

“No we were not close. We spoke occasionally, not often. He was,” she hesitated, “into other things than I was – like becoming Dean.”

“Oh yeah?” He let that strand of conversation go. “Dad discussed Gauss’s law and Poisson’s equation with me a time or two before he died. He did say that he thought that gravitation had been miscast and that it was indeed a force and not an add-on to mathematics – whatever that meant from his perspective. He insisted that it had to be a minor residual side effect of electrostatics. And... well, he was losing it by the time he and I got around to talking about physics much.” Roger looked up at Julie as though revealing significance. “He told me to ask you about it.”

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“I remember when you did ask me about it while you were in school here.” She smiled thinking about it. “It made me happy that he had not forgotten the assignment he had given me. I asked Edward one time whether his dad had ever told him his thoughts on gravitation and he just looked at me like I had lost my sanity. So when you asked me and said that your father had asked you too, it filled me with a strange sort of joy and on account of that I began to look into it again.”

“I don’t really think Dad and Eddie were on anywhere near the same wavelength, not enough to talk very deeply about anything.”

“No.”

Roger could tell that Julie was deep in thought on some issue.

“Edward and I did have a minor affair a long time ago.”

“Eddie?” Roger showed obvious surprise. “Minor? My God, I didn’t think affairs ever came in that variety.” He laughed aloud.

“They did for Eddie. Too late I realized he was no Ray Bonn. I think Lisa still despises me, but it wasn’t really my fault although I guess I bear some responsibility for letting it happen,” she laughed. “But I was certainly not his first, last, most ‘minor’ (or major for that matter) affair.”

“Oh.”

“So how far did you get on the residual of electrostatics path, Roger? It all seems quite familiar as roads I’ve taken.”

“I figured you would have.”

“Had an affair with Edward or with Gauss?” She laughed.

“Gauss; I never suspected Eddie. But I’ve come to think Gauss’s law should be questioned – at least more properly understood. Poisson’s equation is where it’s at don’t you think? Then after a moment, “Anyway, Ellie told me I needed to spend some time with you to see whether anything I’m doing makes sense.”

“You know, that makes me feel really old.” She laughed again. “I’m sure Lisa would never have suggested that to Edward. She must not have told Ellie about that situation.”

“No. I don’t supposed she would have. I did notice a slight chill between the two of you yesterday.” They were both laughing easily now. “However, I should tell you that Ellie did mention how much you had aged since we last saw you, so maybe Ellie isn’t as much of a saint as you make her out to be.”

“It was mean of you to relay that to me Roger,” she smiled playfully now, “and I thought Ellie and I were working amicably as great friends.” Then,

“What does Ellie think of what’s transpiring with Tommy?”

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“She’s on board with it I think. You knew she and I had a similar problem

I suppose.”

“Yes. Everybody knew.”

“Yeah.” He rolled his eyes. “Dad handled it at least as badly as I am. But they put on a show so everyone would know it was okay. Ellie thinks I’m being hypocritical for not being more understanding in this case. But Margie and I have sibling issues that shouldn’t be so major what with the age disparity and nothing for either of us to be jealous about, but they are real issues, nonetheless. We are very different, let’s just say that. I don’t think mixing those problems with daughter-in-law issues is a good idea.” He hesitated before adding, “You said that you and Ellie were working amicably. May I ask what that might have entailed?” he asked suspiciously.

“Your explanation of your problem with Tommy and Margie doesn’t seem to fully explain it to me Roger. Plus, it isn’t your relationship with her that should matter do you think? And, by the way, you do exhibit a certain amount of ageism.”

“No, it doesn’t, and I don’t. I guess I’ll just buckle up for the ride.” Then after thinking a moment, “You don’t really think I’m so shallow as to think there’s an ideal age, do you?” Then after another moment, “Or an undesirable one.” He laughed at her concern. “I retired because I wanted to, right?”

“I thought you did, but now I’m wondering.”

“Yeah. One has to look cool. You did notice that Dad’s last home run barely made it over a short fence, didn’t you?”

“I did. The double he hit later was pretty impressive though. And he would never have gotten too old for me.”

“Yeah, but he got too old for his own expectations, I think. He was just the shell of the man he had been by the end.”

“It wasn’t suicide though, was it? Wasn’t Lesa driving?”

“Yeah, but she’d have done it if she thought his intellectual life was over and had wanted it done.”

“I couldn’t have. But...”

“But you weren’t Lesa.”

“Regrettably I wasn’t.”

That gave them both pause.

Finally it was Roger who spoke, “You asked me to come by today and you didn’t answer my question concerning what you and Ellie might have concocted on my behalf. Why?”

“You haven’t enjoyed our conversation?”

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“Yeah, sure I have. It was good to get some of that out, I guess. But you’re not supposed to be a practicing psychologist, you’re an established physicist, so that can’t be the point of all this.”

“Yes, I am a physicist and that *is* the point of all this. Whether you’ve ever gotten around to admitting it or not, so too are you, probably the brightest I ever had in any of my classes. We need to work together on gravity. You’ll have to explain what you consider to be suspect about Gauss’s law and we can go from there. I remember some of what your father had to say about Poisson’s equation and what Einstein had gotten wrong in its regard.”

“I’m no physicist; what you remember was from years ago. Time flies. I’m just an amateur on the outside looking in – just a ball player... well, I *was* a ball player, and I was only slightly into physics a long time before that. Since baseball I’ve just been trying to figure out what my inimitable father, Ray Bonn, the bambino was going on about.”

“The ‘bambino’, if that’s how you insist on seeing your father, was on the outside of physics looking in too until he was securely on the inside looking out at everyone else. He made that transition when he was quite a bit older than you are now. He may be known as the famous baseball player who understood physics, but he was really the great physicist who wasted too much of his life, including the playing of baseball from my perspective. I don’t expect you accept that but it’s the truth.”

“Well, that’s one perspective.” He laughed. “In our family there’re the bambinos and the hoity-toities. Mom was a hoity-toity, not in the sense of foolish prattle but in the sense of seeming to deserve Prada, and it took that seeming sophistication to make the whole thing work, I think. If it hadn’t been for her arrogance that night on Larry King Live, there wouldn’t have been anything worth talking about. It took them both. You know what I mean?”

“I do, yes. But don’t you think I’m just a little bit hoity-toity even if over the hill and might look less out of place with a sleeping bag in a shopping cart than with Prada?” Here they both laughed with her portrayal of herself as the homeless wretch. “We could make it work. Ray told me once that he thought there might be a Noble prize in reworking gravitation. I would really enjoy collaborating with you on this. You are following him into Coopers Town, so why not follow him up into Scandinavia.”

Thoughtfully, Roger said, “He never made it to Stockholm you know.”



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There was a pause, and then, “How would that work, where would we start?”

“I’ve put together a file of papers and my own thoughts that I consider relevant. I’ll e-mail access to that file.” She hesitated thoughtfully. “How would you like it to work?”

“Yeah. I’d like the file. I don’t have much to add though.”

“Well, it’ll give us a place to start talking. Did you find a distribution other than the Dirac delta function that worked in replacing point charge singularities? That’s where we have to start.”

“Yeah, I did. I *think* I did. I haven’t been able to find anything wrong with it. In fact, I think I might have found a legitimate derivation from first principles once one rejects point particles, assumes spherical symmetry, and a continuous charge density. Then for a single indivisible ‘particle’ the divergence theorem makes sense. For a continuous symmetric distribution about a single center it’s obvious. You have to have found that.”

“You must mean the inverted exponential form no doubt. Yes?” She turned her chair and wrote out the expressions on the white board behind her for the charge density  $\rho(r)$ , total charge  $q(r)$ , potential  $V(r)$ , and electrostatic field strength  $\mathbf{E}(r)$  for exactly the distribution he had mentioned:

$$\begin{aligned}\rho(r) &= (1/4\pi) q_0 e^{-\alpha/r} / r^4 & q(r) &= q_0 e^{-\alpha/r} \\ V(r) &= q_0 (1 - e^{-\alpha/r}) / \alpha & \mathbf{E}(r) &= q_0 e^{-\alpha/r} / r^2\end{aligned}$$

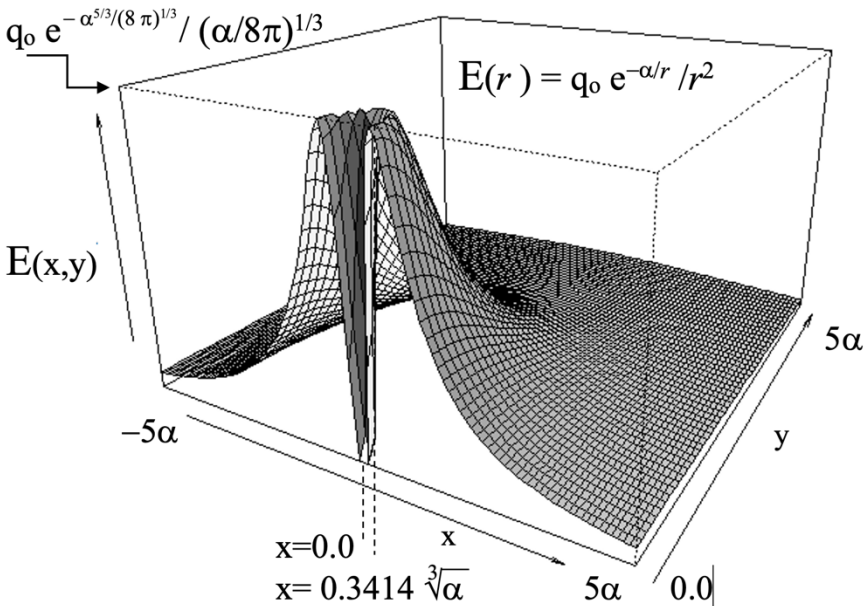
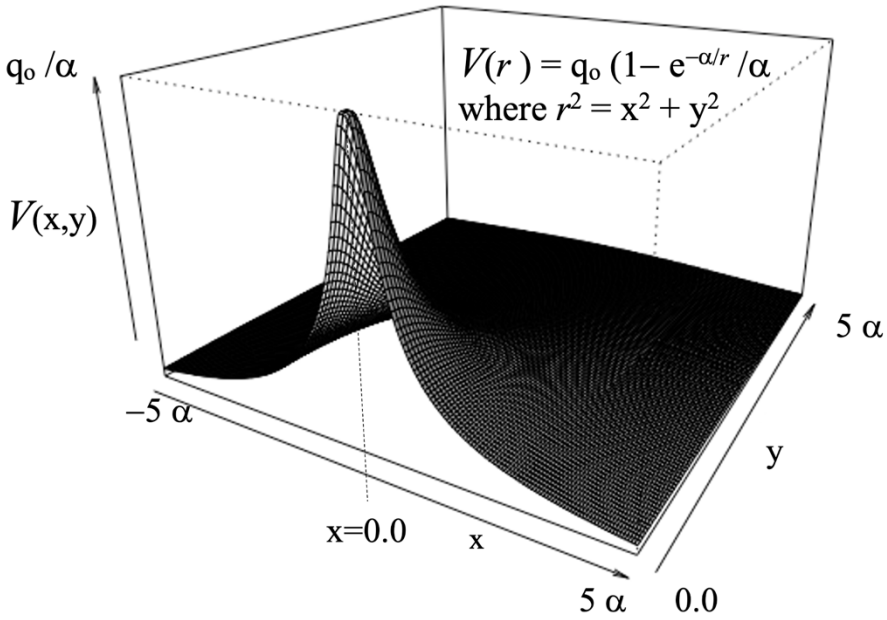
“Yeah, that’s it.” He chuckled, feeling the pleasure of a shared experience. “I suppose you demonstrated that one can now obtain a ‘self-energy’ that turns out to be  $q$ -squared divided by two times alpha?”

They were both smiling happily now. Julie grabbed a notebook behind her desk and returned, thumbing through the pages till she found diagrams of the potential and field strength.

“When applied to real charge densities it looks like this.” Then, turning the page, “for the electron if the self-energy is directly associated with the accepted electron mass, then alpha is determined to be approximately equal to the accepted electron radius as determined by its experimentally determined cross section.” She stopped momentarily before facing him again, “And that is pretty damned amazing don’t you think.”

“I do,” he said laughing. “Pretty God damned amazing.” Then, “But all this is electrostatics, right? What about gravity?”

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“Yes, it is just electrostatics as properly expressed using classical field theory. But significantly it’s a good place to start if we’re hoping to find a residue left over for gravity; it associates rest mass with electric charge at least.”

“Yeah. I think that distribution is a great place to start. You know, recently I actually found someone else on the internet that had already used that distribution for the electronic charge distribution to avoid the

singularity problem with ‘self-energy’. But he didn’t show a rigorous derivation. Nor did he try to explore implications into gravitation – that I’m aware of anyway. Nor have I, of course, other than having a warm feeling about it by associating rest mass with the electrostatic self-energy.”

“I have made a couple of feeble attempts at deriving the formula but without success. But I hadn’t really considered your suggestion that Gauss’s law might not apply to distributed charge in this different context; it’s intriguing to think that it might be derivable from first principles – that it’s essentially a Poisson-related distribution. You really think it can be rigorously derived? I’ll have to look at it again. You definitely will have to clarify what you’ve been thinking.”

“Gauss’s law still has to work for distances that are large relative to the size of the electron.” He smiled at his own seeming certainty. “I do need to get your take on what I’ve been thinking about that. The validity depends on inclusion of the origin in the boundary specification, but I can’t be positive without your confirmation.” He hesitated. “It may just be that I got to a point where I convinced myself that it *could* be derived. I do that sometimes; do you?”

She smiled at all she liked about him. “Yes, I do. No one seems to have addressed principles that make that particular distribution imperative. It seems to be the only distribution that meets all the supposed successes of the point particle concept in the experimentally verified limits without actually restricting charge to a mathematical point. But I haven’t come up with a definitive proof. I’m glad that you think you might have?”

“I think I have, yeah, and... I think that distribution is ‘necessary’ in the strongest sense of that term based on the uniqueness theorem applied to the Poisson differential equation. But that’s just my intuition, not proof.”

“That’s what I like about you (well, one of the many things); it’s like a certainty based on a foreknowledge that I think your father had too. And the intuition. Maybe that’s what Fermat felt and never got around to the hard work of actually working out in detail.” She looked at him with a focused intensity. “Let’s work out the details. Can we do that together? I think I’d be good at helping you with that.”

Roger hesitated a long time, all the while looking straight into her eyes. They were more green than blue he noticed for the first time, beautiful really. And then, “Yeah, okay. I don’t know if we ‘can’ – as in accomplish the feat – but maybe, huh? Anyway, you wouldn’t be ‘helping’ me since I don’t really know what I’m doing. I definitely do not presume to know how gravity results from this, but I have this

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strong premonition that it must. You would actually have to ‘do’ all the hardest parts with me watching. That’s what happened on that cosmology book that Mom insisted on attributing totally to my dad. He was completely spent by the time they got around to finishing that, but she wouldn’t budge. You can’t do that. I won’t let you.” He glanced at his watch and exclaimed, “Oh God! I have to get back to the hotel.”

“Okay then; we do it together?” Julie smiled broadly and made a sound that was almost a giggle when he nodded his acceptance as she stood up and came around the desk. He rose and they hugged as more than a mere handshake to seal the deal. “Tomorrow then?” she asked. “Is 2:30 okay? I’ll have the rest of the day.”

“Yeah, fine. I have to get the family to the airport; I’m late.”

“It is great being with you again Roger. I’m anxious to get to work on gravity again. You’re everything I thought you’d be by the way – home runs and all.”

Roger stepped out of her office awkwardly as he hurried, wondering what he’d gotten himself into as he strode down the hall.

When Roger walked into the lobby of the Marriott Tommy and Margie were there with Ellie, each standing next to a bag, Ellie with two.

“You knew we had to check out of here by eleven,” Ellie stated with a bite to it. The others just stared at Roger wondering what would come next. He glanced at the clock over the front desk: 11:12.

“Oh, sorry.”

“You must have had a good time with Julie?” It was Margie applying her barbwire.

Calmly for once Roger just said, “Yeah.” Then he added what must have been obvious to all three by now: “I guess I’ll be staying on.”

Irritated, Ellie replied, “You could have let me know so I could have separated our clothes out a little better.”

“I’ll be okay. It’ll just be a few days. Eddie won’t mind if I borrow some of his casuals; we were about the same size.”

“Did you tell Lisa?”

“No, but she gave me an open invitation.”

“So how’re you going to get around? Is Julie going to play escort?” It was Margie.

“What is wrong with you women? My God! I’ll drop you off at the airport and extend the rental agreement. It’s not rocket science for

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Christ's sake. You two bust my butt to do this and then you bust my butt because I do."

"It's fine Roger," Ellie inserted, a little mellower now.

"Yeah, Bro! We is glad to be rid of you."

The ride to the airport was uneventful enough. Then there were hugs around after Roger and Tommy sat the bags on the curb, too many kisses and apologies from Ellie, and the one kiss that was way too many from Margie. God! As he stood there with Ellie and Margie dragging their bags into the gap in sliding glass, Tommy remained beside him a moment longer.

"It'll be good Dad. Now you can be who you are, and I'll just be who I am." He smiled, "I am no Ray Bonn Dad."

They did the man hug again and Roger watched thoughtfully as Tommy walked away into what must certainly be a separate future to be determined exclusively by Margie and him – mostly Margie he supposed.

These were strange emotions that Roger was left with, they reverberated throughout his being. It was like being torn apart. Maybe it was like women must feel post-partum when a part of them becomes somebody else. For him it was like he was suddenly Ray Bonn, able to realize the other half of himself and free to realize whatever he wanted to be.

As he stood there, he noticed that all three were queuing up at check-in, all laughing and watching him with good will. It was as though it was *his* boat that was setting sail and they were on the shore waving.



## 8 NEW BEGINNINGS

Lisa didn't seem particularly surprised, but she was obviously happy to realize that it was Roger who was the one responsible for the ringing of her doorbell and not another well-wisher with a casserole. She kissed him – what was it with women?

“Oh, Roger, I am thrilled you've come. You'll stay a while now, won't you?”

“Yeah, a few days if I could. I'll try not to get in your way.”

“That would be grand – better yet if you got in my way some. Go ahead and bring your bags on in.”

“Yeah, well... the thing is, I don't have many – just this carry on.” He smiled awkwardly. “Ellie already had our bags packed when I got back to the hotel after deciding that I'd stay on a bit. By then we had to rush to get Ellie and the kids to the airport.” That didn't sound like an adequate explanation for being here now once he had verbalized it.

“You stayed at Julie's too long being convinced to stay longer I'll bet.” Remembering Julie's comment about the minor affair, he thought he noticed a bit of something in Lisa's way of saying that. “But sit down and talk to me,” she added after a pause. Then in an only slightly different tone, “I know how that can go with Julie; she can be quite persuasive I understand.”

Roger sat down on the couch across from where she placed herself and wondered to what extent she understood those facts about Julie's persuasiveness – and if so, the extent to which Eddie's probable claim that it had been Julie who had been so persuasive had been total lies.

“Anyway none of that matters,” Lisa continued, adding much to Roger's comfort. “I'll bet Eddie's clothes would fit you if they're not too out of date.”

“Yeah, that might be good at some point, but shouldn't Junior get the first shot at them?” He felt very awkward with the verb he had used; this whole conversation was becoming uncomfortable .

“No, he wouldn't. He's,” she paused, “a playboy, I guess.”

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“Oh.” Then after a little consideration, “Not as happy about that status as one usually assumes I gathered yesterday.”

“No. He’s never really been very happy,” Then she added, “about anything so far as I can tell, especially the things that should have brought him the most happiness.” She smiled but it was a sad smile.

“I guess I’ve been a little too caught up in my own limited world to notice much about the people I should have been aware of. I remember him as a really cute kid that I envied a lot.”

“Yes, he was cute, wasn’t he?” She paused. “That smile of his. Well, he does have issues – and problems – let’s just say that about my little Eddie.”

“One of which is with ‘Lil Liza Jane’ I gathered yesterday,” he said with a side glance and chuckle. Then, “At least I didn’t have to grow up with sibling rivalry issues. They came later.”

“Oh yes, Eddie definitely has a serious sibling rivalry problem but he’s the only one fighting. Everything seems to be so easy for Elisabeth and Eddie seems to think it was all given to her, but it wasn’t; she worked harder for it than he was willing for himself. But you and Margie? Sibling rivalry?”

“Yeah, well, she’s fine, but I wish she had found her special someone while she was at Harvard.”

“Roger, don’t be that way. Remember how important it was to you and Ellie that your situation allowed you two to marry. I was so happy for you and now I’m happy for Margie and Tommy. After clarifying her adoption status, it all makes sense. Did Tommy ever date anyone else?”

“Yeah, I guess it’s important. No, I don’t know that he ever liked anyone else. Still...” They both smiled recognizing that however ‘nice’ it might be, celebrity publicity never is.

They talked on until Lisa exclaimed that she just had to get something together for them to eat. “You cannot imagine how much food is left over from yesterday,” she said. “I’m really glad there will be someone here to help me with it.”

“Your kids have left already?”

“Yes, this morning. Elisabeth still has a high schooler, you know, and Eddie, well I don’t know... what or where.”

Lisa got a plate of sandwiches out of the refrigerator and some juice. She put a couple of plates, glasses, and cups on the bar.

“Coffee?”

“Yeah... please.”

Roger pulled up a stool.



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“You’ve been on the road a lot over the years, haven’t you? How was that? Did you ever get used to it?”

“Ellie thinks I got too used to it and don’t ‘communicate’,” he did quotation marks with his fingers, “like a normal person.” He laughed.

“I would have thought there would be a lot of conversations and comradery with your teammates. I was thinking more of the disruptive schedule of irregular meals and missing the home cooking though – that sort of thing.”

“Yeah, well, I’m not the greatest comrade. I guess I never really bonded with athletic type people – maybe they felt the same way about me. I have a bit too much snob in me, I guess. The meals and schedule never mattered to me so much though.”

“Food never mattered much to Edward either. I think he’d have liked to have had a life on the road.”

“Well, he went to a lot of conferences as I recall. He actually came to a game or two when I was on the road as you say, and he said he had been on the road too.” But now as he recalled those occasions, there had been a different young woman beside him in both cases.

“Yes. He was gone quite a bit; he did like that aspect of his position. I think it’s about the only part he did like. I always thought he would get into some particular field of physics and get buried in his research, but I don’t think that appealed to him so much. He did get into promoting the work of others in the department though I think.”

“I saw his office yesterday as I was roaming at will through your house.

Do you think I could use the office for a spell?”

“Certainly. Make yourself at home there and everywhere in the house. You can use the bedroom with the walkthrough to the office. I’ll make up the bed.”

“I can do that if you tell me where the sheets are.”

“I want to. I’ll need to tidy it up a bit. My little Eddie sort of leaves a mess wherever he goes.” She laughed.

So Roger dropped his bag in the bedroom and went into Dean Edward Bonn’s office.

The office was large – much larger than the one Roger had designed for himself in their new home up on the reservoir, the one Ellie had declared *way* too big. Why had he wanted a drawing table in there anyway, was he “planning on becoming an architect of offices,” she had asked. No, but when you need to lay something out, peruse a map, or God knows what, you need space. “But a couch and table – a dining room sized table?” she had continued her interrogation. “It’s like an expensive motel room; is that why you

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want it like this?” Maybe – yeah, just maybe. He was used to being alone in his own domain without worrying interruptions or interrogations.

But why was Eddie’s so big? There was no drawing table and although there was a table Ellie might call a ‘dining room sized table’, it isn’t; it’s a conference room table, complete with six chairs on each side, the whole thing butted up against a gigantic desk with his overstuffed chair. Behind that – actually some way back – was the white board with a pull-down screen above. This was not an office where one did private research, it was a corporate conference room where you bragged about the research – probably someone else’s research. It was where one might entertain DoD officials, trying to entice them to fund department research. There was no couch, but many chairs lined two walls. Opposite the desk was a large TV screen.

Upon entering the room Roger had surveyed his surroundings again, still with some surprise. Eddie Bonn was no Ray Bonn, that was for sure. Finally he placed his laptop on the conference table and hooked it up to one of the outlets running along the center of the table. He pulled out the end chair and sat down taking the flash drive Julie had given him from his jacket pocket and placing it into his laptop, watching the screen as he did so. A photo of Julie sitting in her office was the first image to appear. It was the one on the university’s physics department web site. It was a good likeness; he wondered how long ago it had been taken.

Then he clicked on a “matters of gravity” icon and perused the short list of files, the first of which was “Remembering Ray Bonn”. Hmm. He opened it. There was Ray Bonn standing at a podium lecturing. The caption under the photo stated, “The second time I encountered Ray Bonn.” There were photos of his baseball exploits including several at old Yankee Stadium. “Ray at bat”, “Trotting around the bases” in which he still held his bat in both hands awkwardly to which Roger could not avoid smiling. There was a video of him with headphones when he had been down on the field with a reporter after the game with the caption, “Ray as truth-sayer to power”. There were photos and video clips of his father that Roger had never seen. As he scanned through them, one in particular caught his eye, it was of his father and mother in an embrace, tears streaming down his mother’s face. A caption read, “At Ray’s first wife’s funeral”. Whoa. He’d never seen that one. But on and on they went; it was a veritable shrine to Ray Bonn.

He exited that file. The next one was titled, “What I was told by Ray Bonn.” He opened it. This file was text, more or less a diary of

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Julie's encounters with Ray Bonn, headed by titles and dates. The first was, "When We First Met." In it she detailed an encounter at a restaurant in which he had signed a copy of the book he had written. There was a photo she must have taken with her I-phone of Ray sitting at a table with Eddie and Lisa and a photocopy of the page with the signature had been inserted into the text. She identified Edward and Lisa as the ones who had been dining with his father and of her own impertinence at interrupting their dinner to ask him if he would please sign the book for her. Upon his asking her name, she had replied of, "My name's not Lesa, sorry." His response to that and apparently everything else, all recounted verbatim. And there it was – the signature that had irretrievably altered a young girl's life:

*"Julie,*

*"I think there's a Nobel Prize awaiting whomever can sort out all the alternative conjectures concerning relativity. My own guess is that gravity doesn't belong in that hodge-podge by the way. Win the Nobel Prize will you please.*

*"Thank you for asking for my signature. I needed this today.*

*"Ray"*

Then he read Julie's account of her follow up question to his lecture concerning what he had written in her book concerning gravity not belonging in the theory of relativity. That was followed by another verbatim quote of the rude response his father had given her:

*"Julie Thompson, didn't your mother ever teach you not to kiss and tell?"*

Then she had apologized, and he had apologized for his rudeness, followed by his description of a Far Side cartoon of the "Pigs who don't believe in gravity" flying about, and acknowledgement of his being one of those pigs. That was followed by the rationale that Roger remembered his dad reinforcing on many occasions concerning the gravitational force being forty orders of magnitude smaller than the electrostatic force. It was always essentially as she quoted,

*"If an electron's charge can't warp space, then don't expect me to believe its mass can."*

There was more – much more. There were several anecdotes of conversations that had taken place while his father had been teaching a class there before he and his mother had married. There had been

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private conversations in his office, at least one concerning the possible involvement of octonions. Clearly his father had been good at motivating her to look into that possible avenue of research. He must indeed have been an excellent instructor; it brought back memories of how he had motivated Ellie and him to investigate topics without giving them the answers he hoped they would come up with by themselves. He had been good at that.

But it was manifestly clear in every one of these accounts that Julie had been totally consumed by the man although she didn't indicate that there had ever been any impropriety or direct reciprocation. Still, it gave meaning to many of the conversations he himself had been a party to growing up in which his mother had teased his father about 'Julie Thompson'.

Wow, he thought. The Bonn men have been a bit cruel to this generous girl he thought. 'Girl?' Yeah. Probably in all those situations she had been just a girl; she still seemed like just a girl in many ways even as she pushed sixty from one side or the other.

He went back to the list of files. Next was one entitled "Octonions"; he opened it. It was a long article discussing the mathematical properties of scalars, vectors, tensors, quaternions, and the logical steps beyond them to octonions and beyond. It was well done. In pouring over the sections of the file and inspecting the figures he obtained a feeling for what would be involved if one were to apply octonions to a problem. It was clear why his father had thought that it might contribute to a deeper understanding of gravitation although it also became clear to Roger that the complications were immense. At no point in the description did it enlighten him as to how they might be used in application to gravity. He left the file with the feeling of knowing more about what octonions 'were', but having no idea or intuition that this might be a viable path he could or would like to follow.

Then there was a file entitled, "Electrostatic Gravitation" whose size was 5.7 megabytes. That must be what he was looking for. He opened the file. It seemed to be separate manuscripts and copies of research articles from the literature.

"Ahem. Might I suggest that I've prepared a little supper for us?" It was Lisa. She was at the door, a door he had not thought to close.

"Oh. What time has it gotten to be anyway?"

"Not late, but after six. I thought you might be getting a little hungry. It's not much but I thought you might enjoy a bite of something if you're going to be concentrating this hard."

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“Yeah, sure. Why don’t I just wash up?”

“That’s fine. There’s no real hurry as far as I’m concerned.”

Going through Little Eddie’s bedroom to the bathroom he noticed that the room had been tidied and the bed made. Then shortly he made his way down the hall to the kitchen where Lisa was taking a casserole out of the oven. He followed her on into the dining room where she had set their plates formally.

“You’ve gone to a lot of bother. You shouldn’t have.”

“Well, I didn’t make this, and I don’t really know whether its homemade or store-bought, or whether it will taste good. I guess bringing casseroles to the bereaved has a long tradition.” She smiled. Then after a pause she added, “I do prefer eating in here. Eddie would always have preferred just eating in the kitchen at the counter, but I like taking the time to make eating a more respectable part of the day, so let me.”

“Yeah, well it will be pleasant. I got so used to meals just being the dietary aspect of training that I don’t usually put the proper emphasis on just enjoying a meal I guess.”

“We didn’t either really. It was only rarely that Eddie would indulge me to a dining room meal. He would scoop up a plate of what I had prepared and eat it at the bar in there. I couldn’t persuade the kids to do it my way. It was too easy the other way I guess.”

The casserole was macaroni and cheese. It was very tasty and the asparagus she had added was good too. Off in a side dish she had put half a pear with cottage cheese; she had grated cheddar over it. The cloth napkin would have appealed to Ellie he thought. Women. “There definitely is a difference in tastes and attitudes between the men that too often are served and the women who serve them,” he thought. He tried to formulate that thought but however awkwardly presented it was exclusively internal for which he felt an apology required.

“Oh no,” she said. “There is a difference; it would be wrong not to be aware of it.” At which Roger realize that some of his soliloquy must have been verbalized. “I’m not sure Eddie ever thought about it. He was so preoccupied in what he was doing that he didn’t pay a lot of attention to the family.”

Roger ate slowly – much slower than his usual, attending his thoughts more carefully. He learned a lot about what had transpired with the Edward Bonn family since he and Ellie had frequented their home during their college years – so long ago now. Lisa had taken care of Tommy and Margie some and interacted with him and Ellie

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and Julie (Davidson) with the activities in their charitable foundation a lot back then.

An account of Julie's death (or her 'passing' as Lisa referred to the event) had been in order, but Roger avoided mention of the conversations that all of them had been embroiled in that day. He did not reveal any of the details Margie had scooped up about her origins that she had presented to shock them all on that occasion.

As they continued eating there was, of course, Lisa's persistent interest in Margie and Tommy and their 'thing' and why their love suddenly became legitimate. God was Roger tired of that topic. He really liked Lisa though and it seemed hard for him to propagate the lie, but he did. And then the inevitable doubt about how his parents could have pulled that adoption scheme off without anyone suspecting. Did he know? Of course – he had to have known but he hadn't told them in all the time he had been with her and Eddie here in Palo Alto. Why? Well, he wouldn't have told, would he? It was his parent's thing, wasn't it? All lies.

Thankfully Lisa realized that he did not feel comfortable talking about these topics and changed the subject. They were about through eating by then and she allowed as how he probably wanted to get back to what he was doing.

“What is it exactly?” she asked.

“Gravity.” After a pause he appended, “electrostatics and gravitation.”

“Oh. Is this related to what Ray was interested in? Wasn't it he who got Julie interested in gravity?”

“Yeah, it is, and yes, I guess he got her hooked on it too. Did Eddie ever look into it?”

“I have no idea what Eddie's interests in physics were. Maybe he was into gravitation at one point; he spent a lot of time with Julie there for a while. But that was a long time back. She's probably different now.”

There didn't seem to be any cattiness associated with the remark, but there was definitely an innuendo of some sort. Roger didn't pursue it. He just said, “Well, it's probably a dead end like everyone who matters in physics thinks it is, but it's interesting to me. Julie seems to have come up with some interesting notions. Ellie wants me to get into something and swinging at golf balls isn't anything I enjoy. So... yeah.”

“Could you explain to me just what it is that is so interesting. I did read Ray's 'Aberrations of Relativity' way back when; I enjoyed it... sort of.” She smiled as if recalling why she might have. “But I don't

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think I got what a physicist or a philosopher would have gotten out of it; I skipped over the equations. I know gravity is different, but..." She paused again as though not knowing exactly how to get at what it was that confused her. "Do you see what I mean?"

"Yeah. Well, everyone's into something different. I get that. But I think why my father thought that what he in particular was into was of some overarching significance was because whatever he got into, it was the epistemological aspect that interested him and that he tried to explain. It wasn't the technical aspects that most scientists get into. That's the cool aid I grew up drinking." He laughed at this point before going on. "I think I understand what it was that fascinated him; it fascinates me as well. It isn't just learning how something 'works' because it might be useful; it's learning to know how we know what we think we know and that what we think we know is true rather than just something that works. Gravity is just a mundane fact; nothing can change that, but the explanation of it just doesn't seem right somehow. Nothing we find out will ever change the way things fall." He paused here. "But why? Why do they fall? There is a fairly long list of reasons that I have for why current explanations aren't satisfying to me. Newton's didn't satisfy him either. So the reason I'm interested in it is because there is that list of reasons that I would like to have addressed. Well... I don't suppose you wanted a map of the neurons that fire when I think about that subject, but that is the best way I can describe why I have this somewhat irrational interest in it."

"It doesn't seem irrational to me; it makes sense to me now. Do you have any idea just how much you remind me of your father.?"

"Yeah, I do have an idea." He laughed. "Deja vu all over again, right?" A shadow crossed his face, "I don't like it very much. I'd much rather just be me."

"I don't know about that, but I do know that you are more your father's son than Eddie ever was. You know, Roger, it wouldn't have surprised me to have found out that it was Eddie and not Allie who was not a biological Bonn."

"Whoa. Really?"

"Really, although I do know that he and Jamie are legitimate heirs in many ways. Eddie just didn't *think* like his father did. But I've been keeping you from working off your list of reasons. I'll let you get back."

Roger got up and started to leave the table but then realized he really should help a little. He picked up his plate to take it to the kitchen.

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“Oh no, I need something to keep me busy Roger. You go and get back at what you’re here for. Are you going up to the Farm tomorrow?”

“Yeah. I am. Julie said she’d be free mid-afternoon – two thirty.”

“Okay. So I’ll see you in the morning. What time do you like breakfast?”

“Don’t bother. I almost always just have cereal and a toast; that’s one thing I do for myself.”

“Well, I’m usually down here by seven thirty. So I’ll see you then.”

“Okay. And thank you so much for everything. I hope you sleep well.”

“Oh, I will; I always do.”

Back in Eddie’s office Roger re-opened the file “Electrostatic Gravitation”. It documented the rationale for the anticipation that electrostatics and gravitation might be but one and the same force applicable to different domains. This kind of reasoning was his comfort zone. What Julie had written was exactly the way he felt about those same issues. Their intuitions seemed to be essentially identical. She included diagrams showing similarities and differences in the force fields of two masses and two charges of the same sign.

She showed only the slightest apprehension with regard to her convictions of the veracity of proofs of Gauss’s law that is essential to both electrostatics and Newtonian gravitation. It made him a little uncomfortable with conjectures he had mentioned to her earlier that he would have to try to substantiate tomorrow. He read the rest of the file and did some scribbling to validate various of the arguments she had presented. He agreed there too.

Then he grabbed a sheet of paper from one of Eddie’s shelves and doodled with circular figures of spherically symmetric objects of different radius with their centers at different distances, checking the applicability of Gauss’s law for porous charged objects with regions like a Venn diagram where the substances were interspersed. He formulated an equation to represent the forces between the objects. He contemplated it a long while without convincing himself of its validity.

It had seemed like no time at all had transpired when he happened to look up at the clock that hung across the room from where he sat. A quarter to one. Whoa. He looked at his watch. Yeah, it was. He had lost track of time once again when involved in deep concentration that he considered to be his only hobby – his only vice, he had once heard a teammate say.



## 9 CRANK SCIENCE GETS CRANKING

Roger woke to sounds in the kitchen. He noticed that he hadn't even closed the door to his bedroom last night. So through the open doorway, around two corners and down a stairway he heard a phone ring and Lisa's half of a conversation.

"No. I'm fine. Roger's here for a few days.

"Yes, it does help; he's a good listener.

"No, no, no. It's not like that. You know that I have no complaints, honey.

It was so good to see you yesterday. Where are you now.

"Oh. Well, it was nice of her to have come. She has been a part of our family for a while.

"Yes, I know. She is no longer close to you. I understand. How did Jeanie handle the occasion? It must have been hard for her with Elena here as well.

"Well, yes, she did seem to drink maybe a little too much but who could blame her?

"No. I don't blame you either.

"Elizabeth was just trying to help, Junior; she loves you.

"Well, don't you worry about it; everything will be fine.

"Goodbye honey."

By now Roger was pretty well dressed and wondered into the kitchen as Lisa leaned, her head in her hands, elbows on the counter.

"You do indeed start your day at seven thirty, don't you?" Was Roger's way of introducing himself.

"Yes. Yes, I do. A lifelong habit I guess."

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“Yeah, not a bad one. I’m usually up about now too, although since my retirement I’ve ended up staying up later and having a little harder time getting up sometimes.”

“I noticed that you were burning midnight oil last night. I hope it was an enjoyable time.”

“Yeah, it was. When I saw that big clock on Eddie’s wall, I was surprised at how long I had been looking at those files of Julie’s. There’re a lot of them.”

“Was it what you had hoped?”

“Yeah. Amazing really. I remember my father once talking about how he and my mom had worked together, ‘Great minds go down the same gutter,’ is what he always said, “just like two turds.”

“So are you and Julie the ‘great minds heading down the same gutter’ in this case?” Lisa asked with a bit of a chuckle.

“I guess that sounded a bit arrogant, didn’t it? Except for the turds, but I didn’t mean it that way and Dad didn’t either. But it’s just that there are many ways of looking at things and it is rare for two people to have the same or even a similar perspective. That’s what I found amazing, I guess.”

“It would definitely promote communication and progress on resolving issues, wouldn’t it? And no, ‘gutter’ hardly conveys a sense of arrogance,” she chuckled.

“Yeah. I think my parents hardly knew whose ideas came from whom. But, yeah”. Then, “How was your night? Were you able to get any sleep or did my burning the midnight oil, as you say, keep you awake?”

“No. certainly not. It took me a little while to get to sleep, but I slept well. You weren’t the reason for it taking a while. I would say you were more responsible for my being able to get to sleep eventually, knowing that you would be here this morning.”

“Well, I’m glad I am then.”

“I’ve put some different cereals on the table since you said you’d like cereal. I’ll push the toast down and we can have that when it’s ready.”

They ate with very little conversation although Lisa did ask at some point whether Roger had been ‘impressed’ with Julie Thompson back when he had been an undergraduate. Did he know that his father had been impressed long before?

He acknowledged that he had been – “somewhat”, whatever he might have intended that to ameliorate. And he added that yes, his father’s having thought she was a brilliant ‘girl’ had come up quite often as he was growing up.

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Lisa let that strand of conversation go and the conversation drifted to many other topics until finally she acknowledged that Roger must want to get back to what he had been doing. So he was back up in Eddie's office reviewing files and making notes about what he intended to bring up for discussion later. He worked away for what must have been several hours.

"Weren't you intending to be at the Farm by two thirty?" It was Lisa looking in on him.

He glanced at the clock. "Oh, yeah! I lost track of time. I've got to get going. Thanks."

He unplugged his laptop and very soon was heading toward Stanford, but not before accepting a sandwich to eat on the way and a hug and kiss from Lisa.

There were many more people in the hallway of the physics building this time of day. He had taken off his sunglasses too soon and there were students who did double takes. He had learned the signs of having been recognized; it was unpleasant, creepy really.

Julie's office door was ajar. He knocked and peeked in. "Is this a good time?"

She was up and at the door to greet him.

"Would it be alright if we shut this thing? I hate being recognized."

"Sure." She shut the door, before embracing him. "I'd rather they didn't see me embracing a former student right yet anyway." He was grateful that she did laugh after letting him go.

"Yet?" he said. "You know, you don't have to do that every time if we're going to work together on a regular basis. In fact you probably shouldn't." He also laughed when he said it to reduce the awkwardness.

"Oh, Roger," she replied still laughing at him. "I'm just an old lady who will always be thrilled each time I see you. I always see your father when I see you and I would so have liked to hold him in my arms. Is that okay?"

"Yeah." He laid his laptop on the table in front of her desk and plugged it in just as he had in Eddie's office. "Your office is like a toy version of Eddie's," he said.

"Yee-ah," she said as if mocking him.

He did a double take. "That's my line, you know" he said.

"Yeah, and I like it. I've decided to use it myself. And anyway, that was your dad's line long before it was yours." They both laughed.

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“And this was *his* office. I had to beg for it. Much more important to me than being dean.” They sat down next to each other still laughing as he opened the laptop.

“I apologize for not having purged that file of the shrine to Ray Bonn. I imagine that kind of creeped you out if you looked at those files.”

“It did actually. There was so much stuff in there that I hadn’t known, stuff I should have known. Photos and video clips I should have seen.”

They both shared a respectful silence – he guessed that was what he should call it – after which he ventured, “I guess I would have to say that the Bonn men have really screwed you over.” His laugh was not enough to neutralize the comment.

“No,” she remonstrated. “Eddie maybe, not Ray. Your father was not like that. I think he knew I loved him from the first time we met, but he would never have taken advantage of something like that. He was a kind man.”

“Yeah, well... I’ve heard it said that he was kind and generous to women but not to men. I know there was one woman he didn’t like. But, yeah, I saw the files and read your accounts.” Another pause. “It was interesting.”

“Do you want to see my account of interactions with the other Bonn?”

“No, no, no. Let’s let that lie.”

“*He* did,” she said with a tinge of bitterness before proceeding without pause. “What else did you read?”

“I got through most all of what you wrote in the Electrostatic Gravitation file and I must say that it made me so glad that I decided to stay on a bit.” Then tangentially, “I wish I had had my file to give you yesterday; I’ll give it to you today.”

“You present material in a way that makes it crystal clear to me. It’s like we think the same way about issues – attack problems the same way. I don’t mean that I can do anywhere near what you do, particularly the mathematics, but I understand what you say, and I like the feeling behind it.”

Julie blushed at the compliment. “Well, it wasn’t anything worthy of publication or even a serious notice I don’t think but thank you. There was evidently some aspect or aspects that were right down your ally if it rang that true. What aspect looks the most promising to you Roger?”

“Well, I don’t know whether there’s any future in it either, but your write up covered the range of my thoughts. I think that recognizing

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the significance of the distribution with the inverted exponent for charge density is the primary aspect of all of it. Everything stems from that it seems to me. I tried to come up with a bona fide derivation of that distribution for what must have been years during sleepless nights on the road, and all I could come up with that I was sure of was the obvious generator for the function. But I always had this suspicion that it could be derived from first principles – that it was ‘necessary’ in some sense. Recently I just plowed through what I think is the proper application of the Poisson differential equation and I think with the correct boundary conditions that does indeed suffice as a valid derivation. I don’t know why no one much smarter than I am ever emoted about it, but I am convinced that it works.”

“As am I. I thought about it a lot after you mentioned it in our conversation yesterday. It sort of consumed my afternoon and evening and I even woke up in the night thinking about it again. It’s the Rosetta Stone. I must admit that that approach never occurred to me and in all my thinking yesterday and last night, I couldn’t imagine why it wouldn’t have. I was too hung up on octonions I guess, but don’t let me interrupt your train of thought.” Then she added spontaneously, “I think this is as happy as I’ve ever been – at least for a long, long while.”

“Me too,” he said and proceeded. “I think we need to verify the validity of my derivation for starters.” Then after a pause, “Isn’t it amazing how difficult it is to think a new thought that has never been thought before – no matter how trivial. Anyway... I think I would like to work through the effects of composites of the distribution some time. I think Newton’s third law would be in jeopardy at short range if one allowed porous bodies.” He stopped abruptly before finally adding, “Oh, I’m sorry. I’m the bambino here; your role is professor. I need to be a better listener and follower and I don’t mean that in a falsely humble way. I have thought alone for way too long.”

“This *is* your role,” she replied, her hand on his arm now. “Please let’s not be a professor and a bambino. Can’t we just be you and me, forgetting who is what and how old. Let’s both be young students and free of stereotypes.”

“Thank you,” was all he could think to respond.

“But first, what is this about the third law of equal and opposite forces? Do you really think an apple does not attract the earth with the same force as the earth attracts an apple?”

“Let’s just say that I’m willing to doubt it – at least for an up and down quark at short range. The up quark would be the earth in this comparison according to my analyses. But that was just a vague

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notion I had last night with the rejection of point particles, interspersed objects would only experience equal and opposite forces if their densities and radii were the same, wouldn't they?"

"Whoa," she responded? "How can that be true? Newton's arguments seemed rock solid to me on that issue. If they were not equal the conservation of momentum would be violated, wouldn't it? Can we just avoid that possibility for the time being at least?"

"Sure, it was just a whim I got thinking about last night and couldn't figure out a way around it. Sorry to have brought it up; I'm sure I just overlooked something. So let's not waste time on it."

"Good. Well, shall we just dig into the issue at hand then?"

Roger gave his flash drive to Julie and together on their separate lap tops they proceeded down through steps in formally solving the Poisson differential equation for potential associated with a symmetrical charge distribution with the added boundary condition of a non-infinite value at the origin. At the end they had each confirmed applicability of Poisson's equation and its solution that Roger had asserted.

"I should have tried that long ago. I wonder why I didn't?"

"You know," Roger intoned, "I have found that whenever I try to come up with a solution that isn't the traditional one that I get sidetracked over and over again. It's like there's some sort of wall that you have to break through. Thoughts are so habitual. We accept what has been assumed about potential, not realizing that experimental validation only applies to the associated forces."

"That's it, isn't it. Gumption traps."

"Yeah. When I first tried that approach, I made a mistake on the first differentiation step and that resulted in an expression that didn't work at all, so I abandoned the approach. Then a long time later I decided to look at it again and I found that I had made that mistake on the first step and proceeded on to the end, but again it didn't work; I had made a mistake on a later step. So I scuttled it again. But it kept coming to me in the middle of sleepless nights and I would work through the steps in my head and think that it worked, but in the morning when I would go through the steps I would always find that it didn't because I always assumed the traditional expression for potential. So I became convinced that it just wasn't the right approach. It was totally frustrating. I was forced to work away at the implications of a distribution I could not derive, just assuming that there was some kind of derivation that ultimately would work. Every once in a while, I would attempt again to find some kind of legitimate derivation using Lagrangians or god-knows-what without success. Then I'd put it aside

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and try to be just an ordinary guy for a while watching TV with the guys down in the lobby of some motel or later when I was home with Ellie. Finally I was waking up working on that damned differential form again too many nights in a row. Ellie was getting worried about me getting up and going into my office in the middle of the night; I think she thought I was into porn.” He laughed. “Then one day, not too long ago, I came back to it in daylight. Bingo! It worked.” He laughed. “It’s just a pain in the ass trying to come up with something new.”

At this point Julie leaned over and kissed his cheek with delight, “I can’t help it Roger,” she said. “Turn me into the dean and get me fired for sexually harassing a former student if you must, but that is just marvelous.” She was laughing joyously. “You worked at that in the middle of nights while you were on the road playing ball? No one else knows that I’ll bet. It should be in your biography.” She continued laughing. “But, yes, that’s exactly how it is, isn’t it?” she continued. “It’s as though the heathen gods are guarding every secret of the universe to defend the myths of our forefathers; you have to fight them every step of the way. Isn’t it just grand to join in that fight?” Roger looked at her askance. “There is no dean,” he said.

“Well, it is really, really hard, isn’t it?” she continued, ignoring his off-the-wall comment and insisting upon a response on topic.

“Yeah. It’s like trying to hit long balls against those god damned Yankees.” He laughed.

“In the seventh game of the world series!” she exclaimed.

“Yeah, the world series!” They were both laughing now.

“We’re going to get it Roger. We’re going to hit it out of the park.”

“You think?”

“Yep, as if there were no gravity at all.”

They sat mesmerized for some time – whether a moment or minutes, they couldn’t have discerned – before a sound broke the spell.

“That’s your phone isn’t it,” Julie noted after the muffled sound had occurred several times.

“Oh, yeah.” Roger unzipped a section on his backpack that sat on the table.

“Hi,” he said into the phone. “What is it?”

“What is it? What is it? I’m your wife; that’s what *it* is.”

“I *know*, Ellie. I can read the caller ID on my phone. What’s up?”

“Apparently you’re going to stay on for a while. Lisa said you seemed to be getting into the gravity thing pretty heavily.” There was a laugh in the background, apparently Margie.

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“Why not just ask *me*?”

“Okay, are you getting into gravity very deeply?”

“Yeah – I think so.”

“Any idea when you might be coming home?”

“I haven’t actually thought about it.”

“Well, I’m leaving for Sun River tomorrow and I won’t be back till a week from Monday.”

“Oh. Is Margie going with you?”

“No. She’s going with Tommy today.”

“She’s going to travel with him?”

“Yes.”

“All over, on the double A circuit?”

“Apparently.”

“That’s crazy. They don’t even take planes.”

“That boat has already sailed Roger; get on board or wave goodbye.”

“Oh, God!” There was a pregnant pause. Then finally he asked, “Where’s Sun River and what’re you going to do when you get there?”

“I’m playing bridge with Cecil and Marianne.”

“He’s playing bridge again?”

“Roger, he never quit. He just needs five gold points for his masters.”

“Jesus, doesn’t that take a lot of points?”

“Five hundred. He’s been playing for years Roger.”

“How many do you have?”

“I don’t know, three fifty or so.”

“God. Doesn’t that take a long time?”

“What did you think I did all those years you were away? And every Tuesday and Thursday since you retired?”

“Oh yeah. So doesn’t Marianne play anymore?”

“Of course she does, she already has her life masters.”

“So why do you have to go?”

“I don’t have to go, Roger.” There was more laughter in the background.

“I want to go; we’re going to play team games.”

“Team games?”

“Yes, Roger. Like you and I played at Lynnwood, remember?”

“Oh, yeah. Knockout like we played with Joe and Maureen; we did alright didn’t we?”

“Yes, we did fine.”

“So are you picking up a partner down there?”

“No; I’m playing with Joe.”



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“Joe? Joe who?”

“Joe Taylor.”

“Joe Taylor? Doesn’t he play with Maureen anymore?”

“No.”

“Why?”

“Because she’s dead, Roger. She died last fall when you were in the playoffs. He started coming back to the club a few months ago and he needs some cheering up. He’s a good player.”

“Oh yeah. So you’re flying out Saturday?”

“No. We’re driving.”

“You and Joe?”

“Yes, Joe and I.”

“Where’re you staying?”

“Sun River, Roger; where do you think?”

“I mean, in a hotel?”

“No, a house. All four of us. Roger, you’re like talking to a computer. It feels like I’m filling out a form to communicate with you anymore. You don’t know the slightest thing about me anymore.”

“Yeah. Sorry.”

After another pause it was Ellie, “Well, if you come back before I get here, there’s that new restaurant in the strip mall.”

“Okay.” He was confused. “Thanks for calling me.”

“I’m your wife, Roger, remember? Anyway have some fun; I love you.”

“Yeah.” While still staring at the silent phone he said, “Yeah, me too.”

Julie continued watching his statuesque figure for some time before probing, “Problems?”

“No.”

“It looked like problems,” she responded with a little chuckle. “It sounded like problems to me.”

“Well, I don’t know. I guess I’ve lost my grip on the real world.”

“I’m not the real world anymore? I’m in your grip you know.”

“I am not very good as a trapeze artist; letting go and grabbing on is something I thought I was done with.”

“Like when you were traded by the Giants to Atlanta. Well, I will never let go of you until I am sure you have a hold on something you like better than me.”

Roger turned to stare into her face, but it was more as though he saw through her. This conversation was not comfortable. “Can we just get back to work?”

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“That’s what *I* want to do.”

“Are you into chromodynamics?” he asked out of the blue.

“I don’t know whether I could say I was ‘into’ it, but I think I understand it pretty well – the motivation for it at least. Why? I suspect you have a good reason for asking.”

“Yeah. I think we have to apply the indivisible particle charge distribution at that next lower level – quarks. Have you tried doing that?”

“I have, I did, but it doesn’t seem to me that it makes much difference at what level we apply the distribution. What problems did you run into?”

“First of all our distribution addresses the singularity problem and action-at-a-distance too – at least I think it does, but whatever the distribution is, the force from the more confined nuclear charges will always overwhelm those from surrounding negative charge at large distances where gravity must kick in. So, I have been thinking that possibly it is the color charge in the nucleus that has a tiny residue at large distances. Also, I can’t figure a meaningful way for the products of neutron decay to arise from the quark composition of the neutron; an ‘up’ surrounded by two ‘down’s just can’t provide enough energy for the byproducts of the decay?”

“Precisely. That’s why there has to be gluons.”

“Did you ever look into ways around that?”

“It is generally assumed that gluons provide the bulk of the energy that binds the quarks together, of course. Do you have a problem with gluons?” She scrolled through some pages till she came to diagrams of the traditional structure of the atomic particles. “This is the accepted approach, you know. So what’s wrong with it?”

“Yeah, I do know. I do have a problem with gluons; it seems to me that the gluon is used as a *deus ex machina* – that’s my problem with gluons. The problem needs to be worked without them.” He paused without Julie stepping in; she was just staring at him now.

“This sort of reminds me of when I would get into a slump and couldn’t hit a thing,” he continued. “Eventually I’d have to reevaluate the whole scheme of things: Am I going blind, am I swinging differently, are they throwing different pitches at me than they used to, am I too damned old,…” He laughed. “That was what I figured out about my last slump.”

“You went out on a high.”

“Not really. But what I’m getting at is that there are always more things to look at than one single reason, more ways to skin a cat, I

guess. It just seems to me that there should be a more elegant rationale for cohesion than glue for God's sake."

"Yeah," she laughed. "I've always had some reservations concerning the application of gluons with their rather vague association with a force rather than just saying that there is what has come to be called the *strong* force. The name itself is offensive, isn't it?"

"Yes, it is offensive. So how do you and/or establishment get around the inefficiency of requiring that separable force?"

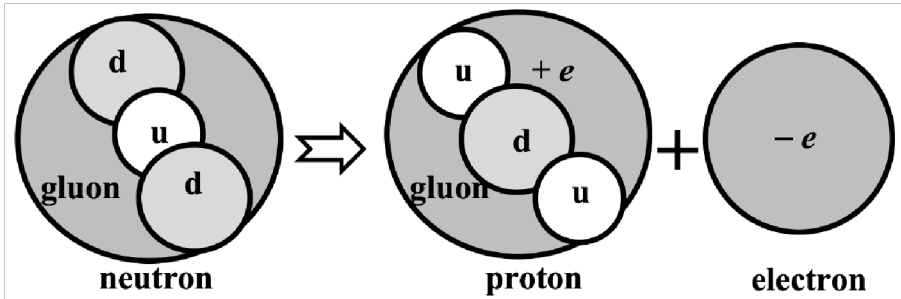
"I guess I just have to say that I do. Is that inelegant enough for you?"

"Well okay, but then what about the electron? I've just been groping in the dark here, but it seems strange to me that the electron which is essentially the same size as a nucleon isn't acknowledged as having any structure. I think it must: three down quarks."

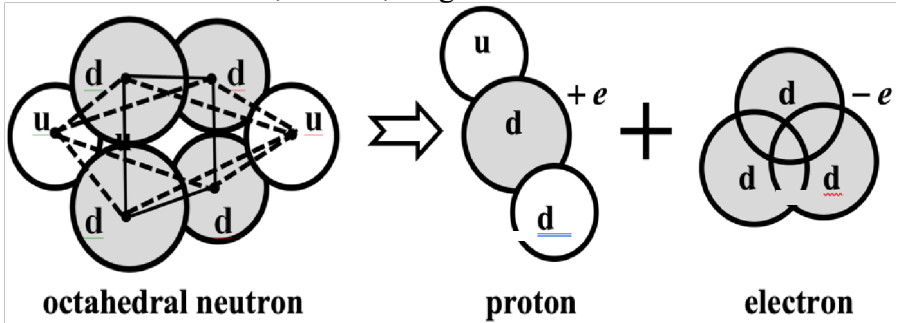
Julie's eye brows lifted as she cocked her head sideways, obviously aghast. "You think there's a quark substructure to the electron? What's that solve other than violating the exclusion principle?" She laughed. "Aren't you going a little out of your way to offend establishment with that one?"

"Well, maybe that's just the tip of the iceberg," he responded defiantly. "I don't think a neutron is comprised of just one up and two downs either, just so you know. It seems to me that one should take that accepted structure and add another identical one in a direct tandem cross to produce an octahedral structure of the down quarks with the ups nestled in the minima of the downs at each end to produce the minimum energy similar to the structure of the deuteron. It seems to me that if we can't get around the Pauli exclusion principle by two spins canceling out, leaving a spin of one half, then we may have to abandon the conservation of energy, which I think is how the gluon came to be. Take your pick. But I would rather abandon the Pauli exclusion principle if I had to until we can come up with a good reason for why it doesn't apply in that domain. It seems to me that when something doesn't work anymore you have to change things."

"Okay." She laughed at his enthusiasm and turned pages until she came to a simplified diagram of the decomposition of a neutron into a proton and an electron. "So if one were to loosen up the exclusion principle as you say, how do you save the conservation of energy? And why is the conservation of energy in jeopardy in the first place? I don't see it. The gluon takes care of that. This is just crazy Roger." She was laughing out loud. "This is not the hill we were going to die on."



“Look,” he said rhetorically, “decompose the octahedral structural form of a neutron into byproducts of beta decay and what do you get? “ He scrolled through his file to find a diagram of the neutron decay process as he envisioned it. “You get exactly what we know the products to be – no muss, no fuss, no gluon.”



“Oh! I see where you’re coming from. Then you think we should apply the indivisible distributions to the quarks and not the hadrons and leptons.”

“Yeah. There you go.”

“Does it work?”

“I think so. One major advantage is that it preserves the identity of the individual quarks – maybe that should be a major principle; it is for me. There is no transmutation of fundamental particles in this approach, no hocus pocus, no gold bricks out of hay bales. And... if you are really invested in the exclusion principle, maybe a tri-color combination of downs is sufficient to avoid their having identical states in the electron. I need you to look at the approach.”

“Is all this described in the file you transferred?”

“Yeah.”

“Then I’ll look at it tonight. The tri-colored downs sort of makes sense other than violating several sacred laws of the standard particle

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model.” She laughed and added, “Roger we’d play hell trying to get that accepted.” Then, without segue, “Mind if I ask you what your plans are? I sensed that you weren’t too inclined to tell Ellie.”

“I’m not used to planning. Things have always been planned for me – in baseball and at home.”

“Okay, I don’t want to get pushy, but I’d like to know from at least one day to the next whether you’re still here and working on this. I can’t work too well without plans of some sort – not strict ones that cannot be broken mind you, but at least tentative ones.”

“Yeah, okay. I guess Ellie’s going to be gone all next week, so let’s just say I’m here till the following week at least.”

“That’s great. What are you doing for supper; it’s getting late.”

“Oh. Well Lisa said she’d hold some supper for me. I gather that she likes the company. So, what’s a good time for tomorrow?”

“Same time? Does that work?”

“Yeah, Sure. I better get going now then; Lisa will be looking for me. So I’ll just say goodbye for now,” and he was out the door.

“Have a good night Roger,” Julie said as he receded down the hall.



## 10 ADJUSTING TO NO RULES

Traffic. Roger had forgotten about that aspect of city life on a Friday. That much of his retirement up in the ‘sticks’ beyond the Canyon Creek dam he had thoroughly enjoyed. So by the time he entered Dean Bonn’s abode, it was nearly eight o’clock. Lisa was in the family room. As he entered, he heard the TV click off.

“Well, how was your day today, Roger? Progress?”

“Yeah, I think we did make progress. Sorry for being so late; I have a hard time with time and city traffic.”

“Ellie called.”

“Yeah. She did get ahold of me.”

“You do know that you can stay here as long as you like.” She was rising as she spoke, “the longer the better. I hope you will stay on.”

“I will until at least the week-end after this next, if that’s okay.”

Lisa was already in the kitchen. “That’s perfect – almost as perfect as staying forever. I have some supper for you; I’ll just warm it up.”

“I guess I’ll wash up then.”

When he returned there were two plates on the table. “This looks like real food, meat and potatoes type food.”

“I thought we had snacked enough; you need some energy.”

“It looks delicious.” It was.

“It sounds like Ellie developed a little bit of a life of her own what with you always on the road. She’s playing bridge now?”



“Yeah, our moms and dads used to play a little, so we learned the basics a long time ago. But yeah, I guess she’s getting pretty good at it.”

“Since she’s traveling to tournaments, she must be very good. It sounds like Cecil and Marianne are extremely good as well. Don’t you play anymore?”

“Not enough to be very good at it and I’m not interested enough to do any reading up on conventions and talking them over with Ellie like the serious

players do. It’s not what I enjoy reading or talking about.”

“We get into life-long patterns that are hard to change, don’t we?”

“Yeah, we do and mine just stopped last year. So what’s your life-long habit or hobby?”



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“I play party bridge with a group of professor’s wives once a week, but I’m not very good at it. It’s an outing. And I have my conservation work that I take quite seriously. I’ve kept at that ever since your mom got us started with it. That’s another once a week type activity with a little more effort between usually. And I read quite a bit; I belong to a book club and I enjoy that. You?”

Is it primarily just physics that you’re interested in now or are there other activities as well?”

“That’s about it, I guess. I usually jog a few miles every day and work out in our workout room some. If I hear about a great book, I’ll try to read it, but I don’t read much otherwise other than research literature in physics.”

“Oh. I jog too – pretty slowly by your standards I’m sure, but I could at least show you a nice path for jogging. Would you like to jog tomorrow morning? I’ll see if I can find some of Eddie’s jogging outfits for you.”

“Yeah. I would like that.”

There was a longer pause between statements than usual. Lisa broke the silence with, “Are you and Ellie in a hard spot right now?”

Roger did a double take and seemed to think seriously about that question, not knowing exactly what to say. It was something that had never entered his mind, even though that fact seemed strange to him right now.

“I don’t mean to pry. It’s none of my business of course.”

“Oh, that’s okay. It’s just that it hadn’t actually occurred to me that we might be, but now that you ask it, I don’t know. You’d probably have to ask Ellie. Did she suggest that we might be?”

“No. No, of course not. It’s just that the separate activities away from each other after having been forced apart for so long seems a little strange to me.” She paused on the precipice. “It just surprises me somehow.”

“Oh, yeah? I don’t know.”

“You always seemed so in love. I remember that so clearly.”

“Yeah, we were.”

“Were?”

“Dammit Lisa. You ask the damndest questions; I remember Mom and dad mentioning that you did. But yeah, I guess maybe Ellie and I have grown ‘apart’ if that’s the term. I doesn’t feel like the right term. I don’t think it’s anything major.” Then after a thoughtful pause, “do you?”

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“Roger,” she began, but after stating his name she hesitated a long while. “No one understands the dynamics of the relationships between other people, least of all me. I have to admit that I lost track of Eddie and my relationship a long time ago. I don’t think Eddie ever loved me very deeply. I know that’s awful to say. But your mom and dad, and then you and Ellie always seemed like the ideal couples to me. I would just hate to see anything happen to that.”

“What was Eddie like? I mean from your perspective. It always seemed as though he was admired by everyone.”

“Yes, he was. Too much I think. It was too easy to fall in love with Eddie, and so difficult to stay in love with him.” She hesitated. “I guess he had had many relationships before we met. I knew that, but I thought ours would be different, that I would be enough for him. I wasn’t. Not ever. I always hoped his wandering would end, but it didn’t. Did you notice that young girl who was sobbing so hard after the funeral at the luncheon?”

“No, I guess I didn’t”

“That was his latest – Maria. He died in her apartment – in her arms I suspect.”

“Oh. I had no idea. I am so sorry.”

“No, you wouldn’t have known. He had an affair with Dr. Thompson too.

Did you know that?”

It was becoming an extremely awkward situation for Roger now. He told the truth though because he always did. Hiding the truth always seemed so much more trouble than it was worth. “Yeah,” he could feel his face twitch,

“she told me.”

“Why? I mean, why did she tell you?”

“I don’t really know why Lisa. To begin an honest,” he hesitated sensing awkwardness with the word, “relationship, I suppose. I mean our ‘working relationship’, of course. I think she might have thought you would tell me. She said it was a long time ago. She implied that it hadn’t lasted long and that she had been very glad when it was over.”

“I think they all say as much,” Lisa replied, “except for that last poor girl. I suspect she thought that she was beginning ‘happily ever after’ just as each of the others had for as long as Eddie’s attention span lasted.”

“That’s a bit grim.”

“It has been grim, Roger. I guess I needed to talk this out; I’m sorry it had to be you. I know I should have sought professional help, but I was sure a legitimate psychologist would have encouraged me to

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leave and it didn't seem fair that I should be the one to leave. It took a while, a few affairs, before I knew he would never leave on his own. So at least we shared a house with children."

"So what will you do now?"

"Oh God, Roger." She was sobbing now.

Roger had no idea how to respond to this response to his dumb question. Ellie had never been a crier. Finally he just blurted out, "This is why I've always loved physics."

It surprised Roger that Lisa actually began laughing a little, still with tears streaming down her cheeks.

"I wish Eddie had been into physics instead of just the degrees and honors." And then, still humorously, "and female students," another pause,

"and professors. But I better let you get back to what you love." They both rose, grabbing their empty plates to take into the kitchen.

"You go on now," Lisa insisted.

So he did go into Eddie's office to continue looking at Julie's file, not knowing what had just transpired and wishing very much that it hadn't. He couldn't clear his mind sufficiently to make any meaningful progress, so he had a shower and went to bed, sleeping soundly until he heard Lisa working around in the kitchen.

After his minimal ablutions he joined her in the kitchen to the smell of frying bacon.

"I thought we'd have a good breakfast for a change and then I'll take you out jogging," Lisa said on seeing him.

"Smells good; sounds good."

After eating Lisa handed him a pile of Eddie's jogging outfits. There were sweatpants and shorts, hoodies, sweat shirts, and nylon T-shirts. In her other hand she held shoes. Clearly Eddie had jogged in style.

"Do these fit?" she asked as Roger took the shoes.

"Let's see. Tens. Yeah, that'll work."

After donning clothing that seemed to fit the weather, he waited in the breakfast nook for Lisa. He didn't have to wait long. Her outfit was stylish too and colorful as well. "You guys seem to have been professionals at this," he toyed.

"Oh no. You're the only professional athlete of Ray's sons."

They were out the door and trotted down the street a ways warming up until they came to a crosswalk with a trail heading off in either direction.

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“I usually head off West at this point. If you follow the main trail, you’ll come back right over there.” She pointed across the street. “Don’t dally with me. I’m a very slow old lady.”

“Okay. Well let’s start off together. I’ll stay with you and don’t strain to go any faster than your usual. I don’t feel particularly energetic. If you want to be alone just let me know and I’ll jog off.”

He trotted along beside her most of the way. They walked part of the time, talking cheerily about this and that sight along the way. Morbid topics of the night before did not come up.

After a shower he was back in Eddie’s office contemplating gravity, but his scientific thoughts kept getting interrupted by his memories of conversations of yesterday. Even the fact that those topics had not come up at breakfast or while jogging was disconcerting in some way. Was he being naive as his teammates had so often accused him of being? Did he really think his wife was true to him all the times that he was away traveling on a well-documented schedule? Did he really think that she would think that he had not strayed in all those times away? ‘Ah, come on Roger. Jeez, have some fun.’

He decided to lay back on Junior’s bed to clear his mind.

How old is Joe? He wondered. He had always thought of him and Maureen as ancient. Joe was pleasant enough. Maureen had a ‘tight’ face; she must have had a face-lift or two. Ellie wouldn’t do that. If Maureen died during the ALCS, she’s been dead a while. She and Ellie had been good friends; why didn’t she mention that she had died before now? Or had she? Why hadn’t he asked why she and Maureen weren’t seeing each other anymore? Joe and he not so much. Lawyer? Yeah. Pretty dull as Roger recalled. Case law and bridge conventions were all he discussed. Had a twitch – his right eye. Decent smile. Roger didn’t recall ever having been to Sun River. South of North Bend. Quite a ways.

Eventually he drifted off to sleep such that whether he dreamt or thought consciously became difficult to tell. But he felt better and rose. As he did, he saw Lisa walk by his door.

“Did you get thirty winks?” she asked.

“Yeah, I guess I did.”

“I had a little nap too. How about one of those stale sandwiches for lunch?”

“Sure.” He joined her in the hallway.

“Are you going to the farm again today?”

“Yeah. Same time.”

“Do you enjoy working with Julie?”

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“Yeah. I always liked her style in the class room and she has an easy going manner; she’s someone with whom it’s easy to work. It feels very natural.”

“Is she the one in control?”

Roger looked over at Lisa quizzically. “I don’t think so, but I’m definitely not. It just feels like two people with overlapping ideas that can only be improved by running them by someone else who understands the background.”

“Does it feel anything like what it must have felt like for your mom and dad?”

“I don’t know.” It was spoken with an edge designed to terminate the thread. He felt that conversations with Lisa were getting tedious. The edge seemed to work without his having to address the issue.

“Do you prefer the ham or the turkey?”

“Turkey, I guess if there’re enough of those.”

So they sat on stools at the bar, Lisa commenting, “This is what Eddie would have called a family meal.”

“Did you converse much on those occasions?”

“No, we didn’t. He was always too busy thinking about his next meeting or trip I think.”

“Ellie says I’m not much of a conversationalist either. She say’s I always seem so ‘abstracted’.” He laughed. “I guess I am.”

“Abstracted? Like thinking about things that had happened in baseball or about abstract concepts?”

“The latter I suppose. Physics. Sometimes baseball – more about trades than games or teammates. They would have said the same thing about me as Ellie.”

“Ellie could understand the basics of physics, couldn’t she? I think I could, but I don’t think Eddie was thinking about physics; he was too into the specifics of his life.”

“And he didn’t talk to you about them?”

“No. It would have been boring conversation and I’m sure he knew that. Conversations about things that ‘happen’ are less interesting than those about why they happen don’t you think. It’s values. I don’t think Eddie and I shared many values.”

“Values. Hmm, what do you consider to be values?”

“Oh, I don’t know, spiritual things I suppose.”

“Belief in God?”

“No, not that in particular. I don’t think there’s ever been a Bonn anywhere who believes in God except maybe for me and I was just more or less grafted in. And that’s fine; I understand that. But the underlying basis of things that happen to us and by us, morality, I

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guess. No, it isn't that either; I see values more as the fiber that holds things together."

"I didn't listen very attentively to your preacher during the ceremony the other day, but I did hear something that made sense to me."

"Doctor Thomas? Yes, I really appreciate him. What aspect of his eulogy did you enjoy?"

"It was when he acknowledged that there are people who refuse to think God could have a hand in the bad things that happen in the world and if he does he could not be a good or a just God. And then he mentioned having seen a bunch of little ducklings swimming in a pond joyfully like little children playing at being toy motorboats. He said he was filled with joy at the sense of 'life is good'. And then, apparently out of nowhere a hawk had swooped down and grabbed one of the ducklings and flew off, presumably to its nest high up in a tree somewhere to feed equally joyous fledglings who emoted with the delicious provisions that had been delivered to them. I thought that was a good statement of the problem."

"Yes, wasn't it wonderful?"

"Yeah. It was really. The good and the bad that we observe – and just the everyday things that happen – are not the essentials of life. What we consider good or bad reveals only our personal perspective. There is something deeper that we have to grasp if we are going to be so audacious as to attribute these things to God. In his words God is merely what makes it all possible; what actually occurs in our lives is totally mixed with randomness and our perspective that cannot legitimately be attributed to God."

"I am so glad that you appreciated that. I was so thrilled – I think I can actually say 'thrilled' – to hear him say that. And do you remember the verse he quoted?"

"Yeah, pretty close."

"'Whatsoever things are lovely, if there be any virtue, think on these things.' Yes, that is what I mean by values. God makes it all possible, but we have to grasp the significance and the 'good' of the underlying possibilities.

What do you think?"

"Invariance."

"Invariance," she laughed. "That's what you think?"

"Yeah. Physics. Symmetries. The so-called invariant laws of nature. They pertain beneath the noise of individual happenings. If I drop this glass and it falls and breaks, we can talk about clumsiness or disrespect and carelessness, but that is not addressing the essentials.

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The essentials are the second law of thermodynamics, gravitation, and all the rest.” He laughed back at her.

“Oh, okay. I sort of get it. It’s a concentration on the underlying nature of reality rather than the trivia that actually happens to us because of it.”

“I think she’s got it. I really think she’s gah tit.” They both laughed good naturedly now.

“You’re good for this old lady,” Lisa said even as she still laughed. “I’ll bet you’re good for Julie too.”

“You two old ladies are good for me. I must have needed this sort of change don’t you think?”

“You probably did. I definitely did. I’ll bet Julie did too. Why don’t you bring her over sometime Roger; she and I need to become the friends we always should have been.”

“Hmm.” That was a hiccup to his thinking. “Yeah, okay. Like what are you thinking?”

“Well, I don’t imagine she has any better place to work than you’d have in Eddie’s office does she?”

“I don’t know what she has at home, but her office at the farm isn’t as luxurious, but we don’t need a lot of space or amenities. We’ll just be thinking, talking, scratching out some formulas, and if we succeed at all, keyboarding a bunch.”

“See what she thinks. Let her know how much I would like us to be friends. Ask her if she’d like to come to dinner Sunday.”

“Yeah, okay. I’ll see what comes down. I’m not good at this sort of thing you know.”

“I’ll bet you are in fact. Anyway, you had better be going, hadn’t you?”

“Yeah.”





## 11 ALTERNATIVE SITUATIONS

Julie was at the door of her office smiling as she watched him stroll down the empty hallway. It was Saturday so the building was virtually vacant with whatever students were still around anywhere, outside enjoying the sun. As usual, Roger walked looking down until he was just about to her door. It was for all the world as though Ray Bonn himself were walking toward her. He looked up and there she was. Beautiful, he thought.

“Hi!”

“Hi yourself,” she said. “You look thoughtful. What was going through your mind as you meandered down the hall?”

“I was wondering how to deliver a message, not wanting what usually happens to messengers.”

“Oh oh... did Lisa decide you shouldn’t keep meeting me like this?”

“Not exactly. She welcomed you over any time for us to feel free to work in Eddie’s office. And she’d really like it if you and she could be friends.”

“I see why you were so somber.”

“Yeah, well, if I was, it was because I was worrying about my ability to relay the message rather than in its sincerity. She really is a lovely lady and would really like to be friends.”

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“Okay. We’re all friends,” Julie said. “Now shall we get to work?”

“Yeah. But can we work this out first? She knows that what happened was not your fault – that it was just Eddie being Eddie.”

“Does she? Does any wife who stays with the man really think it was his fault?”

“She does. Why don’t you come over for dinner tomorrow? It would make it a lot easier for me going back and forth between you two. She told me to invite you.”

“She really wants me to come to dinner tomorrow? Okay, I’m going to dinner there tomorrow. Now, about gravity. I’ve read your files and I am impressed. But I’ve found some concepts that I haven’t been able to justify.”

“So are you alright with it – going to Lisa’s, I mean.”

“Yes, yes. That was just three or four months thirty some years ago. If I had handled it better afterward it would have been totally over much sooner.

But I was young. So yes, it’s a really good idea to establish some kind of rapport with Lisa, but I don’t like the distraction right now that I have you concentrating on gravity.”

“I won’t lose my concentration, although... I sort of did last night when

Lisa was venting about Eddie’s behavior over the years. Do you know Maria?”

“Yes, I do. Post doc. A good one – or was – until she became so infatuated with Eddie. Then her work trailed off completely. Lisa knew about her huh?”

“He died in her apartment.”

“That bastard!” Julie shook her head. “Okay, I get it; thanks for telling me. Now...” She broke it off, clearly wanting to leave that sordid topic for good.

“So, some of my ideas don’t jibe?” he asked with a definitely lighter tone, sensing her eagerness to get off on – he had a momentary flash from Lisa’s conversation – ‘whatsoever things are lovely, if there be any virtue’. He smiled at what would have to have seemed an ‘enigmatic’ smile from Julie’s perspective. That too made him smile.

No doubt wondering about what he must be thinking, she proceeded. “Well, I don’t know. That’s what’s good about working together; we can run conjectures past each other.”

“For refutation.”

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“Yes, if they are indeed refutable and deserve refuting. That’s how science works, isn’t it? Not dismissing out of hand but trying every notion.”

“That’s what Dad always told me.”

“I guess I’m just more enamored with the Pauli principle than you are. This would be the only place it didn’t apply, and I don’t really see any major reason why it wouldn’t. I’m not sure about the down quark colors.” She thought a moment. “Maybe. And I don’t see that your intuitions about the indivisible distribution would be adversely affected if we just go with the accepted decomposition in beta decay. Who really cares how many components there are to a given reaction as long as all its necessary features are not affected?”

“Yeah, okay. I think I get that. It’ll probably actually be simpler. But I am bothered by transmutation of indivisible particles; it strikes me of alchemy”

“Disavowing the exclusion principle wouldn’t be readily acceptable to peers without establishing additional claims for chromodynamics. Peers matter in this business. Alchemy? Do you really think so? Then after thinking a moment, “Why?”

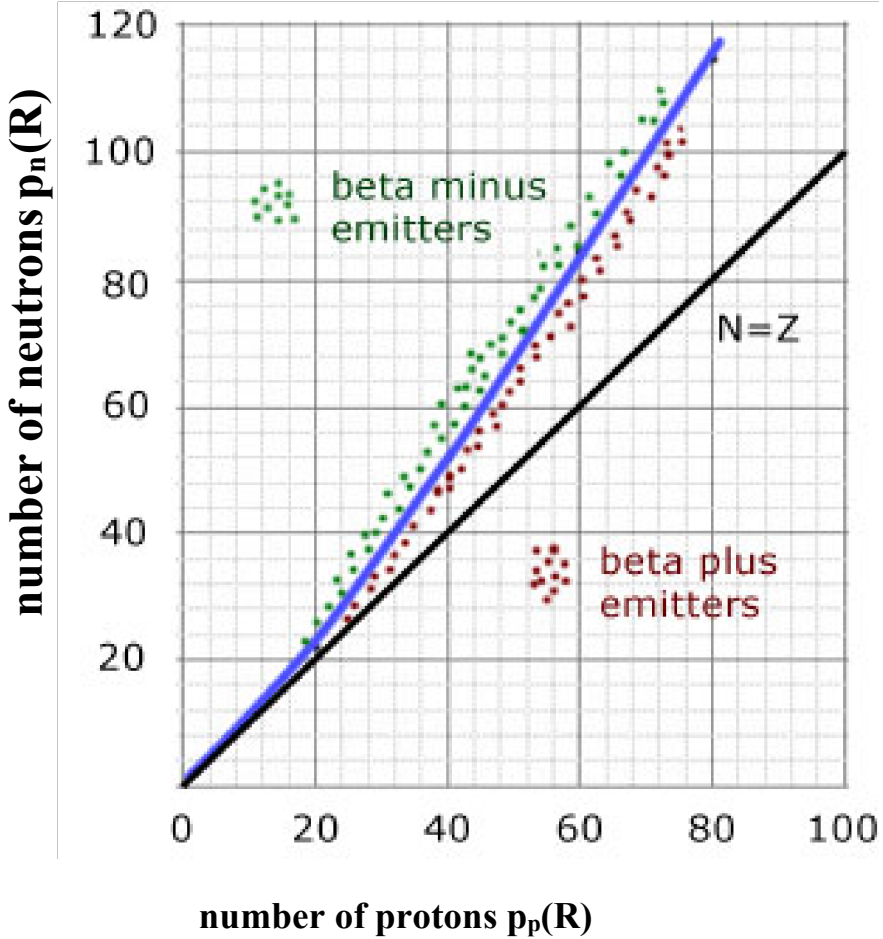
“Of course. The atomic theory of matter is at issue. The lowest level cannot have any transmutations. You can’t make gold out of straw.” He paused for her reflection. Then, “Has the slope of the isotope map been definitively explained?”

“What do you mean? The one hundred and thirty five degree slope of the N,Z plot, or whatever the angle is, doesn’t make sense to you? Do you think your electron decomposition has some bearing on that?”

“Well...” He began scrolling through his files till he came to a couple of diagrams. “You know how sometimes when you haven’t yet figured out why, you think there may be a relationship, nonetheless. And why is the percentage of up and down quarks not a constant?”

“I do get the intuition thing, yes. And I think I can see why you might have come up with this notion, so I’ll take another look into why alpha versus beta plus and minus decay occurs at specific intervals in the periodic table. I’m not aware of anyone trying to explain that other than in general terms of stable isotope configurations of proton and neutron binding energy in the nuclei.”

Julie paused briefly, then, “You think the ratio of the number of up to down quarks has to be a constant? Why?” Her questioning him now seemed to Roger as somehow doubting the advisability of her trying to work with him.

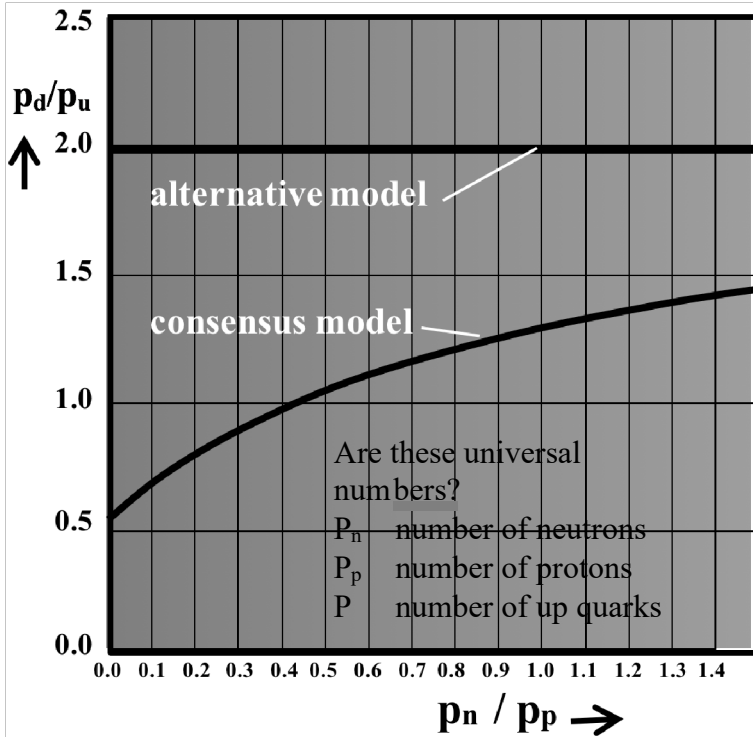


“Yeah, well, none of this is probably all that important to the gravity explanation. I see that and I know that it is gravity we’re investigating. So yeah, I’ll let it go, but you do see what it was that I was addressing don’t you. If you follow the standard model, the ratio of down to up quarks increases over time – it’s 3-to-2 in a hydrogenous plasma and approaches two only much later in the supposed evolution of the universe. If they are the basic building blocks of matter it seems like we’re building on sand.” He scrolled past some pages to a diagram showing the ratio of the percentages of down to up quarks versus the percentage of neutrons to protons which increases with time according to the standard cosmological model.

“Yes. The nesting of quarks makes sense as you pictured them, but I can’t make sense of the decay sequences of isotopes if I embrace your concept of the neutron makeup. They don’t change by a complete octahedral amount as you depict the neutron. I’ll have to give some

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thought to your ratio of quarks sometime. Let's look into beta decay and all the rest of this again later; maybe there's something that we could address at that time. But... I think it's important that we focus on the distributions that match the traditional construction. I see that as viable without redefining everything. Don't you?"



"Yeah, I think so, but it just keeps seeming wrong to me."

"Why not just apply the distribution to the accepted component particles and use the masses that have been accepted by establishment? I looked at doing that last night and I think it works out fine."

"Even the gluon? Yeah, maybe. I'll have a look at what you came up with."

"It's here," she said sliding her opened laptop over to him after scrolling down a few pages. "The half-width sizes are a little larger than accepted but something has to give. I like the sizes that come out of your breakdown better, but... what can you do?"

"Yeah, so..."

"I know what you're thinking Roger. Why one mismatch rather than another? Well, here's my reasoning: Ultimately our proposal (conjecture if you will) has to be accepted by establishment. We do

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that by embracing the concept that is the most favored by establishment. The exclusion principle is a staple of modern physics – has been for a century. On the other hand masses and sizes of quarks are understood to be known with less certainty.”

“Okay. I get it. I’m on board. But how can the inimitable ‘they’ of establishment be convinced if our solution is not spot on as long as we deny *any* of their favored notions at all? And we have a lot of problems left even with that distribution. Two composite atoms don’t attract each other with that distribution alone. We need to conjecture a gravitational component of the charge.”

“Well, here’s what I have begun thinking: Your idea of how to combine the quantum probability distribution of electrons with the indivisible particle charge distribution is very convincing and in large part that is because it is relatively independent of the actual distribution of the total nuclear charge. The nucleus could even be assumed to be a ‘point’ charge relative to the surrounding negative charge and our concept still applies. To understand gravity as a residual effect of atomic charges in the interacting gravitational masses doesn’t require any particular new assumption with regard to the composition of nuclear components it doesn’t seem to me.”

“Hmm,” Roger twisted his mouth around, squinting his right eye as he stared out at the waning sunlight reflected off the next building over.

Julie watched his reactions. “Make sense?”

“Yeah. Well.” He hesitated. “Maybe not. I guess we’ll need to program up combined distributions. I don’t think there’s a strictly analytical solution unless you’ve found one. And I’ve tried enough to be convinced that we need to introduce a separate mass-like charge if you will, but with a Poisson-like distribution except for its being much smaller and only positive in association with electric charges of both signs.”

“I haven’t found an analytic solution either; I suspect also that there isn’t one. But I agree that we can approximate it pretty closely as you said. We can use that to proceed and if we get where we want to go, then we can backfill with a numerical solution. I don’t really get where you’re going with this gravitational charge concept. That’s something we’ll have to put some heavy thought into.”

“Okay. So that’s where we’re heading with this now? Yeah, sure. But did you think about the possibility that the neutrino could be a stationary component of the neutron that balances the spin of two of the more traditional neutron type components with opposite spin?” a pause. “Or that they have opposite spins and the impact of a neutrino

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is what causes decay? Or that the neutrino is the lepton aspect of the electron? Any one of these would tend to ameliorate the problems we've discussed with regard to the three-down-quark electron."

"What?" Julie looked at him with a strained expression, clearly irritated.

"Roger!" She was exasperated. "Please let that go for now."

"I will if you insist, but I just don't want us to lose track of it. Did you ever look at the alternative Feynman diagrams I put in that file?"

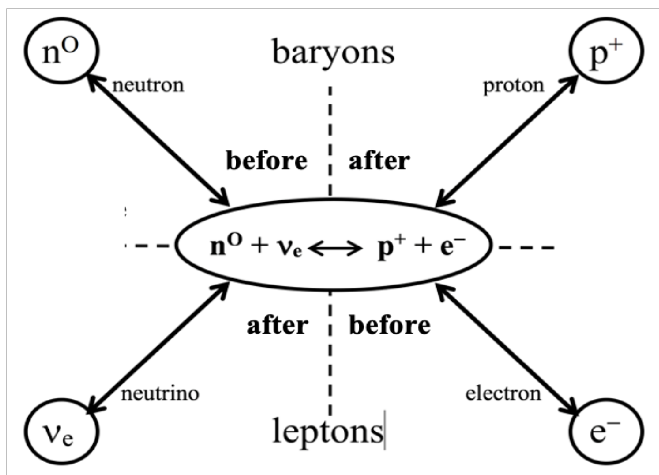
"I did. That would have been a major contender if it had been presented a century ago and you might even be correct. I see where you're coming from but I think we should only concentrate on that after we get a firmer footing on the gravitational effect that is our main purpose. We'll get nowhere if we let ourselves get sidetracked on every interesting detail. That's all I'm saying."

"Okay, okay, but is it alright if I just want to rant for a bit? Look at this diagram." He pointed to an image in his file

"Sure. I'm sorry Roger if I've been domineering. You have my undivided attention for as long as you want it. So go ahead, lets discuss beta decay."

"You haven't been – domineering. I probably have been. But think about this: proton decay is prohibited for several reasons, one of which is that it's the lightest of the hadrons, so there's no lower energy state that preserves baryon number, right?" Roger waited for Julie's nod and her quizzical smile. "But what's so sacred about baryon number when we can juggle them and turn them inside out and add more particles willy-nilly?"

"Willy-nilly?"



“Yeah, willy-nilly. That’s what it looks like to me. Can you explain the justification other than there not being ‘room enough’ in the neutron for four down quarks. Tell me what’s wrong with this diagram here in this file – he scrolled down in his file and found it. You reverse the arrows for anti-particles in the usual sense. Here I have a neutrino as a precipitator of the reaction (rather than an anti-neutrino on the right end of that same arrow) as a product of a spontaneous reaction. That’s okay, right?”

“I’d have to look into it a little deeper to see if there’re other reasons, but if I understand you, you think that a neutrino as precipitator would somehow alleviate the problems. Do you have some idea of how that could promote the reaction?”

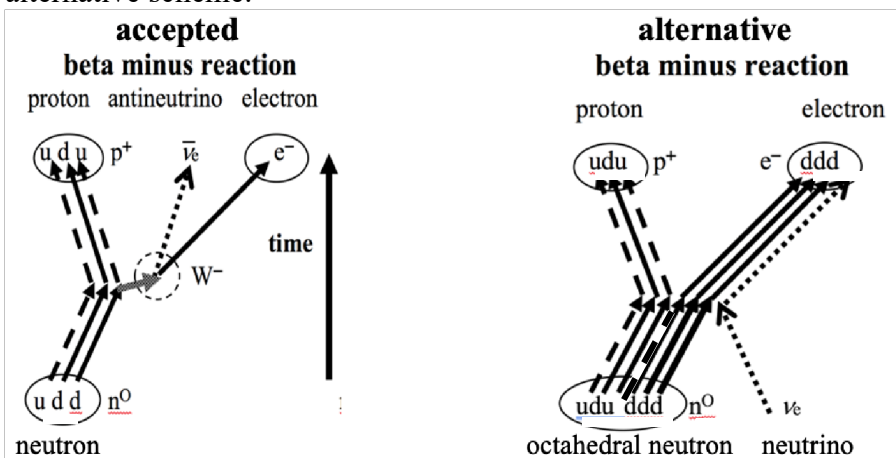
“I think that’s why Ellie thinks I should be down here,” he said with a smile.

“Part of the psychotherapy, is that it? ‘Julie can certainly get rid of your weird notions or help you make something of them,’ is that what she thinks?”

“I think so.”

“Okay, so how is proton decay precluded in your scheme?”

“Well, there’s the energy thing of course, but also, in the traditional explanation of neutron decay there are three ultimate products popping out of one entity at a single instant – depending on what lifetime you want to grant to the ‘wimp’ particle. There’s energy enough so that there is no ultimate prohibition in that regard. But... to reverse that reaction requires all three of the products to be at exactly the same place at exactly the same time with the same amount of energy, which is as impossible as impossible gets. Right? It’s the same in my alternative scheme.”





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“Much of what you are saying sounds right if I remember the data correctly and I presume you have looked it over pretty thoroughly. I can’t see how you can get a positron by analogy to how you construct an electron though. So while I see why you are enthused about that aspect, I’m a little more cautious; I guess I’m more nearly ‘establishment’. But you know what I learned from your father is that one should tackle one problem at a time. Save the others for later.”

“That damned positron. It goes up in smoke as soon as it appears.” But Roger was laughing cheerfully now. “God it’s good to be talking to someone knowledgeable about this stuff for a change.”

“It is. You probably think that inside these ivy halls there’re nothing but intellectual conversations, but truth be told, the only ones there *are* are the ones between bright students and faculty members who have not yet sold out. Even those could be characterized by the transactional analysis that psychologists associate with ‘adult-to-child’ unhealthy relationships. It is a rare pleasure that I should get to interact with you Roger, very-adult-to-very-adult. But listen, notwithstanding what we know of Maria Parino as having been involved with the Dean (rest his soul), she is the right one to speak to about nuclear reactions and beta decay. It’s her field – beta decay in particular; she wrote the book on it as her thesis. And she’s about the right age to play Lesa to your Ray.” Julie was laughing at him at this point. “I imagine she dreamed of that being her role with Eddie, but somehow she got lost in the curtains on the way to center stage.”

Roger stared angrily at Julie now, sufficiently so that he gained an apology. “I’m sorry Roger; that was awful of me.”

“No, it’s fine. Let’s do gravity. That’s my real obsession. I suppose the reason I keep getting sidetracked at the quark level is because I can’t solve the integrals analytically and I don’t have expertise or equipment to solve them numerically.”

“That’s something I can do.”

So they proceeded to define a nominal distribution to account for the proton within its accepted confines. Then they conjoined a Laguerre functional form of the radial portion of the quantum probability solution for the electron about the proton with a Poisson-related charge distribution of the electron. This they figured would define the total charge distribution of a hydrogen-like atom. It was an exhausting but gratifying few hours. Julie said she would program it up and have it when she showed up for Sunday dinner at Dean Bonn’s house the very next day.

At that point Roger left the office.

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As fate – that scientifically unaccounted aspect of reality that escapes the stern constraints of invariance – would have it, when Roger made the last step onto the main floor leaving the building, he heard an unfamiliar voice expressing an all too familiar question, “Aren’t you Roger Bonn?”

He had heard that too many times and would just as soon never have to hear it again. But “be polite; she sounds nice” expressed itself as words as clearly as though they had been typed within in his mind.

“Yeah, I used to be,” he quipped, “and who did you used to be?” He had responded with this twist before even looking up – polite, if a bit sarcastic. The typed words could have been viewed as having been flirtatious even, but without underlying sincerity. Celebrity baseball player interview stuff.

Then a confident, mellifluous, “I’m Maria Parino,” flooded in upon him like a song backed by a string quartet as he raised his gaze to encounter what seemed to him in that instant to be the most beautiful *huge* brown eyes he had ever seen. “I was a...” There was a hesitation in her utterance that Roger could now understand based on what he already knew of Maria Parino, “friend... of your brother. I saw you at the funeral and the luncheon afterward. I don’t think we’ve met.”

“No. I don’t think we did, but I have just heard that you are a top authority on beta decay in the department. I’m glad that we have met.”

“Yes, I am so glad. I understand that hitting baseballs was only one of your major gifts.” Her smile was tremendous.

“Right now I’m trying to guess what another one might be.”

“Physics – like your father,” was the immediate response. “It must be in the blood.”

Roger was not good at small talk, but he could usually maneuver his way around it. He was better at one-liners. He blubbered a little this time however, finally just stating, “Yeah, well, I’ve been away a long time and didn’t get very far before that and right now I wish I understood beta decay a whole lot better than I do.”

“Are you getting back into it? I mean physics. Whatever you’re doing here in the physics building at Stanford on a Saturday suggests that you must be doing just that. Didn’t your father teach here a semester?”

“No. I don’t think we did, but I have just heard that you are a top authority on beta decay in the department. I’m glad that we have met.”

“Yes, I am so glad. I understand that hitting baseballs was only one of your major gifts.” Her smile was tremendous.

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He might as well tell her, he thought, so he did: “Oh, I’ve just been speaking with Professor Thompson. We’ve known each other a long time.”

“Nothing to do with physics then – no mention of beta decay?” She actually laughed as though right at him for his avoiding the question, a mouthful of perfectly formed words and white teeth circumscribed broadly in red were on display. “Is Julie getting into nuclear reactions now?”

“No, she isn’t.” He noted as he spoke that she was ‘easy on his eyes’ and ‘addictive to his soul’ (two phrases whose words he italicized in his mind).

“How did you link me with beta decay so swiftly then? I am not a household name like some people we know.”

“Well, I just happened to have made some silly off-topic conjectures about beta decay for which she informed me that I was ill-informed, and that Maria Parino is the resident expert in that area if I wanted to seek correction.”

“You wouldn’t have happened to have read my thesis by any chance, would you?”

“No, unfortunately I haven’t, or I probably wouldn’t have been on the losing end of those arguments with Julie.”

“May I give you a copy?”

“I’d like to buy one, yes.”

“Don’t be silly. I have a bunch of copies in my office that no one wants. I’m just on my way there now; can you follow me?”

“If you’re not too fast I suppose,” he responded glibly.

“I’ve seen you beat out a bunt and I am not nearly that fast.” She was already proceeding down the bottom hallway ahead of the guy who beat out bunts who wasn’t sure he could make it to first base this time, or in this case, to what ‘first base’ might possibly correspond.

Roger watched her sway to and fro and couldn’t avoid thinking of Eddie and how his mind must have worked in such situations. He was not proud of being Edie’s brother but in this situation he understood.

Maria’s office was evidently just below Julie’s – approximately the same size but with more colorful decor.

“Sit down,” she said. Not “will you have a seat,” or “would you like to sit a bit?”. No. Just “sit down.” No “please,” no uncertainty, just “sit.” He sat.

She sat right next to him, her bare arm in contact with his with no inhibitions about comfort distances; then she reached across the desk, right across in front of him completely filling his field of view and all his senses. She slid the top of the several books off in her hand, then

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offered it to him as his field of view once more became unobstructed. “If you’ve understood chapter 24 of your father’s cosmology book, it’ll be a light read.” She said. Then, “What topic were you and Professor Thompson discussing for beta decay to become relevant as a side topic?”

Roger didn’t recall ever having met a woman who was so direct. Somewhat disarmed, he admitted (and it did seem like an admission) that he and Julie were looking into a new rationale for gravity.

“Really?” She seemed to think deeply for a bit. “Why?”

So onward he went: “Yeah, well... my dad told her once that he thought gravity was not a separate force or a property of geometry. He also implied the same to me. So I guess you could say that we were comparing notes.”

“How exciting! Not separate from *what* force pray tell? Electrostatic? I always thought that maybe your father had confided some aspiration he had had about a direction of investigations to his son, but the dean told me he never had. He said that he and his father had not been close even though they were both leading edge physicists.”

“Yes, electrostatics.” A pause. “Was Eddie – I mean Edward, the dean – at the leading edge of some aspect of physics do you think?”

“No. I don’t think he was. People seemed to think he was, had been, could have been, or would be. But quite honestly, I came to believe that he wasn’t very interested in physics at all.” Maria teared up at this point. “He died in my flat. Did you know that?”

“Yeah. I did.” Roger’s penchant for truth telling reared its ugly head once again.

“I had been trying to break off a relationship with him for much longer than the relationship had actually lasted. He had a hard time with my rejection. It was evidently a heart attack that took him. I did everything I could, doing the 911 call and following directions until help came, but I guess he was dead when he arrived at the hospital.” She was sobbing now. “Even though I had lost all respect for him, it was hard – especially hard.”

Roger just sat there without words for a moment, eventually placing his arm around her shoulder, “I can hardly imagine how difficult,” he soothed.

“Thank you for admitting that you knew.” She sobbed some more. “Of course everyone knew but no one admits to knowing. How did you know?”

“Lisa told me just yesterday.”

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“Oh, I made such a scene at the funeral and luncheon. People probably thought we had been lovers to the end and that I must have been heartbroken. But it was more complicated than that. Of course I was humiliated but that wasn’t why I cried.”

“Yeah. Are you alright now?” Roger inserted awkwardly.

“Yes. Yes, I am.” I am so glad to finally have met you. I’m glad you are doing physics again – or at all. It’s fun, isn’t it? It’s like solving puzzles for fun.” Her smile had returned. “May I see you again?”

“I certainly hope I’ll see you again. I’ll probably have questions with regard to your thesis. I had better be off now though. I’m staying at the dean’s place. Lisa saves dinner for me if I’m late, so I don’t like to be late.”

“Oh, I’m glad for her.” She seemed to think a bit, “Please don’t tell her about me. I’d like to talk with her someday, but not for a while.”

“Sure. Thank you again for your book,” and he was up and away striding swiftly down the bottom hallway and out into the cool Bay area evening air.

## 12 SUNDAY MORNING

Sunday mornings were not something that had ever had any particular meaning for Roger, but ‘Sunday Morning Coming Down’ sung by Chris Kristofferson was one of his favorite old songs. Waking now to the smell of frying bacon brought it on. He knew the lyrics specified ‘chicken’ but it had always seemed to Roger that it should have been ‘bacon’, so it was the smell of frying bacon that heralded the song for him. Lisa must have gotten up especially early to get things going for the dinner he had gotten her into. So he dressed hurriedly to get down to help.

“What can I do? Are there potatoes to peel?”

“Good morning.” Lisa was cheerful. “Yes, please. I have put a few in the sink there. The peeler is in that second drawer.”

“Did we get everything we needed at the grocery store last night or do you need me to pick up anything?” He was already peeling.

“I think we got everything. I’m really glad Julie agreed to come. We have needed to renew our friendship for a long time. I know she is a very nice person.”

“Yeah. I think she is.” He hesitated, but probably not as long as he should have. “I almost invited another guest for you.”

“Oh, you should have. I want you to feel like this is your home to have guests as you like. Who was it?”

“Maria.”

The noises Lisa was making with whatever it was she had been doing stopped. Roger peeled on, now regretting his propensity to say whatever was on his mind and having disobeyed Maria’s explicit orders.

“Maria?”

“Yeah. Sorry. I shouldn’t have said that. It wasn’t even true. I would not have invited her. I just happened to meet her as I was leaving the farm.”

“Did you invite her?”

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“No! Definitely not. The thought never crossed my mind until my perverse sense of humor took over with your expression of happiness for Julie coming over. I don’t know why I do that sort of thing. It’s just awful.” He turned to face Lisa’s look of confusion. He walked over and placed his wrists on her shoulders since his hands were wet and held a potato and the peeler.

“Oh Roger, it’s fine. Your straight-forwardness is exactly what I need right now.”

“Well, I’m sorry anyway; it was crude.”

Lisa laughed. “Yes, it was, but it’s fine Roger; you’re helping me get well. So we better have breakfast. That bacon is getting crisp in the oven. I’ll put the roast and potatoes in then and let them slow roast while I’m at church. How do you like your eggs?”

“Over hard. I hate runny eggs just like pops. So you’re going to church.

Do you usually go on Sundays?”

“Yes.” She cracked a couple eggs in her hands dropping them into the pan now sizzling with bacon grease. “I usually do go. It’s peaceful and I really like the people there. I don’t think most of them believe in God like I do, but we all have the same morality I guess you would say. Do unto others as you would have them do unto you.” She smiled after her little homily. “Unitarians aren’t pushy.”

“Apparently not,” Roger joshed back as he sat down to await his bacon and eggs.

Lisa finished buttering the toast and sat across from him. He noticed that she didn’t say ‘grace’ or whatever people called it. He was just grateful that he had resisted commenting on that fact.

“I guess you’ll have to jog by yourself today. I’m sure you’ll have a better time without me holding you back.”

“You’re not even going to invite me to church?” He laughed.

“Roger, there is nothing I’d love more and probably nothing you’d enjoy less.”

“Maybe another time then,” he teased. “I dressed for jogging.”

It seemed Lisa had just left when the doorbell rang. He had been placing their dishes in the dishwasher.

Opening the door he was shocked to see Maria standing there.

“Hi,” she said, all smiles.

“Yeah. Hi.”

“Come out and go for a ride with me.” She stepped back and turned to leave with a click-clicking of her heels on the walkway.



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Why on earth would Maria be here asking him (well, ‘telling’ him) to go for a ride with her? But after all, what was the line from that classic French movie, ‘When a woman asks like that, you go with her no matter what.’ Something like that. The message is no different no matter what the location, the era, the medium or the language.

Roger grabbed the key hanging by the door. “Hang on,” he said following her to the sedan parked at the curb. He hoped Lisa wouldn’t have seen her.

Maria was already behind the wheel as he climbed in on the other side and reached for his seat belt.

“I waited till Lisa left for church in case you’re worried about that,” she said. “I just assumed she would attend on this day and sure enough.”

“Yeah.” Neither of them spoke again as the car progressed to the end of the block. “I obviously haven’t finished with your thesis. I just scanned it and

then began at the beginning but I haven’t made much progress.”

“No, you couldn’t have. That’s not why I came.”

Watching her, he could tell that she was not crazed or the least bit out of control, so he relaxed a little. “Why then?”

“Didn’t you sense anything when we met yesterday?”

He laughed quietly and then said, “Do you mean like the D. H. Lawrence moment when our eyes met on our first encounter or something like that?” Oh god, he had done it to himself again.

“Yes, exactly. When our eyes first met.”

He did a double take; she was serious. So he tried to lighten the situation with “I noticed that you had the biggest most beautiful brown eyes I had ever seen, and it occurred to me that you were easy on my eyes and could be addictive to my very soul, if that’s what you mean.” He tried to laugh; it didn’t work. “But I am the furthest from a D. H. Lawrence romantic that you will ever find,” he laughed successfully at last, “in case that’s what you were thinking.”

“It is exactly what we were *both* thinking. When you looked at me – at my big brown eyes, as you say, you were not looking at my eyes; you were penetrating to my very soul. A peeping Tom could as well plead that he was just looking at the window glass and not at what was inside, but that wouldn’t hold up in any court of law, now would it? No, you looked directly into *me* and I into *you*, two homeless starving animals, craving each other, already addicted.”

Roger stared.

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“Why did the reference to a ‘D. H. Lawrence moment’ come so readily to your mind just now Roger. Have you ever used that term in talking with anyone else before? Ever?”

Roger just stared into her face stunned. She was parking the car in the vacant parking lot by the expansive city park at the far end of the jogging loop he and Lisa had taken yesterday.

“Well, have you?” she implored, her mesmerizing eyes focused on his. “Have you?”

“No.”

“Okay, so there is something between us already.”

“You came by to tell me that? I am not homeless by the way.”

“Yes, I came to tell you that. And what’s a home? I told you I was not crying for Eddie at the luncheon, right?”

“Yeah.”

“Well, do you know why I was crying my eyes out?”

“No.”

“I spoke with your wife – someone introduced us. I told her that it must have been extremely exciting and wonderful having been married to you all these years. And do you have any idea what she told me?”

“No, how could I?”

“‘You can have him.’ That’s what she said Roger. I just burst into tears; I know I must have made a scene and everyone must have thought it had to do with Eddie and I, but it didn’t. It was for you and Ellie. I thought she was probably making a derogatory comment with regard to what she must have heard of my slutty behavior with Eddie, but whatever she meant in my regard, it was what she implied about your relationship that so disturbed me. She was obviously implying that your relationship was on the ropes and she didn’t care.

It is on the ropes, isn’t it?”

“But... why? Why are you telling me this?”

“My heart was breaking for you. For you. I don’t want you to ever forget our ‘moment’ as you called it. It was real; we need each other. I am yours,” tears began welling up in her eyes as she hesitated, “Forever. Forever Roger; there will never be anyone else. Forever. Don’t ever forget that, Roger.”

“Yeah, well, I’d say you’ve guaranteed I won’t forget yesterday afternoon or this moment today; that’s for sure.”

“Good.”

Roger sat staring in shock at this beautiful capricious creature.

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“Well, you better get out and jog back so you’ll be there when Lisa returns. That way you’ll be sweaty enough for her to think you jogged all the way.”

He got out and watched as she backed around. She rolled down her window as she drove by.

“I stay in my office late every night. Please do stop by; we need each other.” And she was gone, leaving him thinking, ‘what in the hell was that?’

He jogged back faster than his usual, not seeing anyone he passed, too tied up in his own thoughts.

He had showered and redressed by the time Lisa returned. Dinner aromas had been wafting from the kitchen for a while.

“Oh, it’s smelling good,” she said as she walked in the back door and through to the kitchen.

“Yeah, it is,” he replied coming down the hall. “How was church?”

“I’m glad I went. The message was helpful.”

“Whatsoever things are lovely?”

“Yes. Pretty much. What time do you think Julie will show up?”

“I don’t know. I’m sorry I didn’t tell her a time.”

Just as he apologized, the phone rang. Lisa picked it up and very shortly he heard, “Oh Julie, I’m so glad you’re coming.” Obviously small talk and then, “Any time before two would be fine. I’m sure there is lots to talk about and probably lots of physics to get done. Okay. Thanks for calling Dear.” She hung up, then smiling broadly she exclaimed, “Roger, this is just wonderful. You are healing everything that’s been wrong for too long.”

“Don’t put pressure on me like that. My people skills are notoriously bad.”

The phone rang again. Roger could tell by Lisa’s tone and words that it was Ellie. An explanation of the pending dinner occasion was described in some detail. He waited for that conversation to be over, knowing the phone would then be handed to him. He wondered where Ellie was; she and Joe were driving down to Sun River today. They couldn’t be there yet could they?

“Yeah, hi!” Was his response to her when the phone was handed over.

“Hello Roger.”

“So where are you now?” he asked.

“Gresham.”

“Isn’t that down by Portland?”

“Yes. Just a ways East. We’re going on highway 26.”

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“What time did you get off this morning?”

“Oh, we decided it would be easier to make a two day trip out of it so we came as far as Gresham yesterday.”

“And you haven’t left yet today at, let’s see, twelve ten?”

“No. We decided to relax. Joe is just finishing up in the shower.”

Roger heard a man’s voice in the background. “Is that Joe? Showering in your room?”

“Yes. Roger, could you step away somewhere so we can talk without Lisa having to worry about it?”

“Yeah, well, is it okay if I worry about it?”

“Roger, don’t get angry.”

He had walked down the hall and into what was now his bedroom and shut the door. “Yeah, okay, why should I not be angry?”

“Joe has been very lonely and needed some cheering up.”

“Oh, yeah. Did you need cheering up too?”

“Yes, actually, I did. I have for some time. You were never here and then you get here and you’re still not here except when you’re milling around.”

“I’m not sure that I understand anything you’re saying.”

“I’m equally sure that you do, Roger.”

“Do you think that I have ever been untrue to you? Huh?” He waited. No response, so he added, “Well, I haven’t. I may be the only ball player who hasn’t.”

“I haven’t either Roger,” she hesitated, “until now.”

“So is this the one off I should just excuse?”

“No.” Ellie was sobbing now. “I’m done Roger. Joe and I are happy when we’re together. You and I have just been pretending for too long.”

“I don’t pretend, Ellie. It’s not what I do.”

“Yes, I know that Roger, but it hasn’t worked. We’re not good for each other anymore.”

“So that’s it? That’s all she wrote? What’re you two doing after Sun River?”

“I’ll move in with Joe. You can have the house.”

“I don’t want the gad damned house or anything else. Do the kids know?”

“Yes, I told them and they understood.”

“Margie understood.”

“No, Roger. They *both* understood. You have to let that go Roger. They are in love. Love matters; don’t you remember?”

“Yeah, I’m trying to.” He stopped for a moment exasperated. “How old is Joe anyway?”

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“Fifty nine. How old is Julie?”

“What? You’ve got to be kidding.”

“No, Roger.” She was sobbing profusely now. “I’m in love and I refuse to live without it any more. You can find it too just like your dad did.”

Another voice came on the phone; he recognized it as Joe’s. “Let her go Roger, it’s over. Don’t make it harder than it is.”

Roger clicked the end button as his version of slamming the receiver down.

He sat on the bed breathing hard. How had he not known this was happening? He didn’t know how long he had been sitting there when there was a tapping at the door. Then the door opened with Lisa entering to sit by him.

“Is something wrong?”

He stared back at her and finally responded, “Yeah, I guess so.”

“She sounded happy when I spoke to her.”

“Yeah, she would have.”

“What is it?”

“She’s shacked up with Joe.” When Lisa squirmed awkwardly Roger amended his comment: “She’s evidently left me for Joe Taylor.”

“Oh, surely not Roger.”

His forehead was now in his palms, elbows on his knees. “Well, that’s what she said. Him too.”

“We’ll just have to fix that then, won’t we?”

Roger dropped his left hand to turn and stare up into Lisa’s face. “Fix it? Tell me; how did *you* fix it? Some things cannot be fixed. I guess it’s entropy or something like that. Marriages that children or Jesus hold together are not marriages at all, they’re prisons.” Too late he realized the impact of what he had said. He put his arm over to touch her then because tears were streaming down her cheeks. “Oh, I’m sorry. I’m just striking out. I think you’re the sweetest woman that ever was and please accept my apology; however inept it may be, it’s sincere.”

“I know what you’re saying Roger. But it will work out one way or another. Things always do.”

“Yeah, but we have company coming. I’ll wash up and be down to help.”

“Me too. I better freshen up a bit.” She leaned over to kiss his cheek.

So Roger doused his face in cold water, combed his hair, and was down placing the three plates at the table, then the silverware. Lisa

was taking the roast and potatoes out of the oven and vegetables were boiling on the stove when the doorbell rang.

“You get it, would you Roger?”

He did. Julie looked bright and cheery, all smiles if a little awkward as she entered. They greeted each other as the friends they had become, but with Roger thinking about how old she must be and comparing that with Joe Taylor.

Then Lisa was there hugging Julie which turned into a teary embrace. “I’m so glad you’ve come, Julie.”

“Me too,” seemed to be all Julie could come up with as Roger sidled off to the kitchen, proceeding to cut the roast that Lisa had laid on a board. He cut it into thin slices but he wasn’t sure that had been her intent. The browned potatoes were already in a bowl; he placed it on the table.

The two women were chatting comfortably now walking into the kitchen where Lisa began stirring the gravy.

“Can I help?” Julie asked.

“Could you get the carrots out of that pot? There’re hot pads there on your right. I think I left a bowl over there too.”

Julie got the carrots into the bowl and carried them to the table eyeing Roger playfully as he passed her after placing the platter of meat on the table. “You’ve created a culinary masterpiece, Lisa.”

“Oh, Roger and I just stopped off at the grocery store last night and got a few things that we thought might taste good.”

They ate. Their conversation was mostly about what Julie and Roger were up to in their current investigation. Lisa was masterfully making things work. Was there much “synergism” (a term that seemed so... trite, Roger thought) in their previous independent efforts? Did it look promising going forward?

All that was said was orchestrated by Lisa to integrate them into as much commonality as it was possible to achieve. Lisa had a way of making people feel comfortable – like they belonged – and once again, it worked. Other than his lapses of thoughts into the conversation with Ellie everything seemed just right to him and apparently to Julie too. Eventually, but without having wasted a lot of what Lisa referred to as their ‘precious time’, it was Lisa who suggested that Roger and Julie would probably prefer going up to ‘the’ (Eddie’s) office to work on their preferred subject matter.

“Well,” Julie intoned, “I did bring the preliminary results from my programed energy profiles for the alternate substructures of the hydrogen atom.”

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“I’m sure that’s intensely interesting to the two of you, so I’ll just continue the book I’m reading.”

“Yeah, well... I’m definitely interested to see how that turned out.”

After going into Eddie’s office Julie whispered, “We did it in here once while Lisa was in the house.” She shook her head in disgust. “That was the last time. I couldn’t handle any more of that.”

“Would you rather we worked somewhere else?”

“No. I have to rid the images.”

Suddenly an overwhelming sadness struck Roger. With his elbows on the desk he placed his head in his hands as he had earlier.

Sensing his discomfort Julie asked, “I’m so sorry for bringing that up

Roger. Are you alright?”

“Yeah. Just give me a minute. I’m okay. It has nothing to do with that.”

“That was a bad image though; I’m sorry.”

Regaining his composure then, he ignored the interlude with, “So what were the results.”

Still looking at him quizzically, not sure exactly what he meant, she handed him a memory stick. “They’re on here,” she said, “very much as you assumed. In all these cases the charge of an atom remains slightly positive out to extreme distances, diminishing as one over  $r$ . The surrounding field is negative as the inverse square.”

Well-labeled plots were included on the file. He concentrated his gaze on them.

“So as long as the component distributions are all essentially in the Poisson class, there will be a diminishing positive force field associated with electrically neutral constituents of matter, right?”

“Right. We just have to determine from the magnitude what the relative exponential parameter of the distributions are from a statistically valid assessment.”

“No mean feat of course.” He paused thoughtfully. “And not too promising.”

“Not mean at all,” she said. “Pretty damned difficult in point of fact and not promising at all as far as I can see.”

“So yeah, how do we turn this into a gravitational attraction?” Roger asked. “Don’t we have to assume that there is a large positive which is gradually overcome by the surrounding negative, in which case we have to assume that the central positive interacts with the more distributed negative much more than the similar charges interact?”

“This is where the traditional application of Gauss’s law to a strictly inverse square law force says that can’t happen. How

confident are you that we can circumvent that? It's action-at-a-distance versus the integral of charge density times the gradient of the potential over all space. Have we in any way weakened the action-at-a-distance case with our distribution?"

"Yeah, I think so but I certainly don't have a proof. But I see at least the prospect of success. Don't you? Could you do the evaluation for the alternative construction of the neutron?"

"Of course, but that can't change the outlook at all. It's a side issue. You see that don't you?"

"Yeah, but someday I'd like to know."

"Someday you will," she laughed, "but I'm in hot pursuit of gravity and I'm not taking time out to go down blind alleys."

"You're like a cop on the beat. But you think we can make this stick, right?"

"You bet. I've sort of outlined a plan for how we could proceed."

"Good. Are there tasks that fall within my capabilities?"

"Oh, c'mon. Is that how you got pitchers to throw right down the middle so you could blast your home runs?"

"Pretty much."

"That's what evolution has prepared us for I guess – taking advantage of the mistakes of our prey."

Out of the blue as he was looking at Julie following his witticism she asked, "What were you doing in the physics building last night after you left my office?"

It took him a moment to relocate every significant item in his world. There were getting to be too many heavy ones and they were closing in. But before he could respond, Julie continued, "I'm sorry Roger; it's none of my business." She paused again, then: "You see, I locked up shortly after you left my office and went out to my car. The other car in that lot I thought must be yours and it concerned me because there's always the possibility of violence. I started my car anyway and then started to drive away, but I began worrying so I pulled over in the next lot just to wait a little and see if you came out to that car. Then

I saw you exit the building so I knew you were okay and I left."

"Maybe I had to use the toilet," he smirked.

"No, not unless you have severe prostate problems."

"No, I don't. Here's the story. As I stepped onto the main floor after walking the length of your hall and down the stairs, someone called out my name. I don't usually even turn my head in such situations. I'm so tired of giving signatures. But then I realized I was



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in a physics building at a major university so I did look up and there was Dr. Parino.”

“Maria?”

“Yeah.”

“What was she doing there?”

“I don’t know. She had evidently just entered the building. So anyway, she introduced herself. So me being me, I told her that we had just mentioned that she was the resident expert in beta decay.”

“Why?”

“I told you – me being me. What else can I say?”

“Okay, so that took thirty seconds or so.”

“Yeah. Well, not exactly because then she wanted to know how beta decay had come up in our conversation.”

“Because she is who she is,” Julie responded apparently somewhat irritated.

“I didn’t know that was classified information. The physics staff at this university has way too many secrets.”

“Yes, it does and they aren’t very well kept. I’m sorry. So you’re not embarrassed of our working relationship?”

“I can’t think of one good reason why I should be. Is there one?”

“No, me either.”

“So I told her.”

“And she asked if you wanted to discuss beta decay,” Julie finished the next leg of the journey.

“Of course.”

“And you said ‘sure’,” jealousy now apparent in Julie’s tone.

“No. I told her that I didn’t, that it was of only tangential interest to me.”

“And she proceeded to make it central.”

“Julie, I’m sure you didn’t know it, but I’ve had a really bad day and I don’t need people in my life who are at each other.”

“Oh, I am sorry.”

“I know, but sometimes we need someone who just listens.”

“I know that too. You have done it for me. I’ll try harder.”

“No. Don’t try to do anything, be who you are. I like who you are, but I am someone who says what’s on his mind when he talks at all, so I’d appreciate it if you just listened till I finish right now.”

“I will.”

“Anyway, she wanted to give me a copy of her thesis and I didn’t want to refuse.”

“No, you wouldn’t. I would have given you my copy if I had known you were so anxious for one,”

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Roger gave Julie a cross look. “No, I wouldn’t have refused you or her. Anyway, I followed her down the length of the hall to just beneath your office where she sat me down and gave me a copy of her thesis with some discussion of what it covered.” Roger was caught thinking about the tears and his arm around Maria that had occurred at that point and by an effort of sheer will opted not to include that in his explanation to Julie.

“What do you think of it?”

“Yeah, I looked it over last night and then started reading at the beginning. I imagine it’s good stuff; it was very informative for me. It reinvigorated my notion of the neutron, but I’ve barely scratched the surface.”

“Oh, God.”

“Yeah? What’s that supposed to mean?”

“Oh, nothing. I guess you weren’t in her office too long for all that.”

“No. Not long at all, but what would have been too long?” Should he tell her the rest: The apparently significant eye contact, the sobbing, the account of Eddie’s death, his arm around the warmth of Maria’s shoulder? Her telling him about Ellie’s comment. Or the visitation this morning? Or Ellie’s phone call? Oh God, indeed. No. Again he forced himself against all his propensities to withhold all those tantalizing and – he thought, but she wouldn’t – ameliorating details.

“I’m sorry you’ve had a bad day. Does it have anything to do with Margie and Tommy?”

Just then Lisa called from down the hall. “I’ve put a few snacks on the table if you two would like a break.”

Time can go so slowly when you’re having a bad day.

Roger rose to go; Julie followed.

“Has it been a productive time?” Lisa asked.

Roger was ready to say, “Not really,” but Julie beat him with, “Oh yes, I think so. We have a plan for proceeding now that we’re sure the ideas hold up.”

“That’s great,” was Lisa’s response. And all Roger could think was, “Women!”

Julie left shortly after their supper. The time spent by the three of them had been pleasant at all times such that Lisa seemed to be riding a high. Lisa and Julie were long lost friends already. One thing good happened today Roger thought. Whatsoever things are lovely, think on these things. But it’s hard sometimes.

## 13 CONFESSIONS

Uh oh. There was Maria in the middle of his thoughts. Lovely in one sense, not in another, but obliterating all other realities. He got up from where he and Julie had been working earlier and walked down the hall. Lisa was evidently watching a movie.

“Do you watch Masterpiece Theatre?” she asked.

“No, I haven’t. I hear it’s good. Ellie watches it.”

“It is,” she said. “This one in particular. I think you’d enjoy it.”

“Not tonight. I need to get out and drive a little.”

“Sure. I understand.”

He drove a while, not rapidly but staring at the centerline in a sort of catatonic daze. After a while of aimless driving he noticed the stadium and decided to go on to the physics building from this direction. When he got there he saw that there was no car in the lot where he had parked on the other occasions. Julie must have gone straight home for the night. Maybe she was working at home. She must be; that’s where she had generated all that data last night. He idly got out of the car and began meandering toward the physics building; it would probably be locked. He tried the door. It wasn’t so he went in and walked up the already familiar stairs. Looking down the hall to Julie’s office, he could tell everything at that end of the hall was dark. He trudged on back down the stairs and decided to look around the corner down the bottom hallway to Maria’s office. A light was on in her office.

‘A moth to a flame’ crossed his mind as he began walking toward the light that seeped out through the crack under the doorway. Beyond that crack was the unformulated reason he had come. Evolutionary

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reactions kicked in that were no longer appropriate to this environment, this habitat. That sort of thing. Yes, even the phrase ‘that sort of thing’ crossed his mind as another indivisible unit. At her door he stopped. He was there only a moment before turning around. He had taken a couple steps back down the hall when he heard the door open behind him with his own huge long shadow now projected down the hallway,

“Roger! Is that you? I thought I heard something.” She was on him, her arm around his shoulder, swinging around to face him. There were no words then, just kisses, and kisses, and... Oh god!

...it was four in the morning when Roger got back to the Edward Bonn mansion, exhausted. Lisa had left the door unlocked.

Four hours later he awoke to sounds in the kitchen.

After showering and shaving he joined Lisa.

“Good morning sunshine,” she said.

Walking to the table where she had a plate of toast and bowls for cereal for each of them he managed to respond, “Yeah. Good morning.”

He sat down eyeing the several cereal boxes and pitchers with juice and milk. Finally he reached for the Wheaties – ‘breakfast of former champions’, he thought, like Caitlyn Jenner and he himself, also a ‘has been’ trying to be somebody else.

“I was a little worried about you till I heard you come in.”

“Yeah. I’m sorry about that.”

“Do you need to talk about anything?”

“I don’t know whether I need to or not, but I don’t really want to.”

He managed to laugh.

“Sometimes it helps.”

“Then I’m guessing that more often it doesn’t.”

“Maybe. Are you going to be able to stay focused? I think that being busy on something you enjoy is the best medicine for what ails one.”

“I’m going to try.”

“You’re not really wanting to talk are you?”

“No. Not really. But I enjoy being with you and listening to you.”

“Are you going up to the school today at the usual time?”

“I think so.”

“Here’s your own key for the door.” It had been lying by her plate; he had just noticed it. Now she slid it over to him. “Come and go as you like.”

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“Okay, thanks. I noticed that you had to leave your front door unlocked all night; I know that’s not a good idea. Sorry.”

“It’s fine, but you’ll be more independent this way. And I might sleep better.” She smiled generously as she said it. “Maybe you’ll want to stay on here for a while. I would like that you know.”

“No. I think I should get home after Ellie gets there to see if we can’t straighten things out one way or another.”

“So, when? Next Sunday maybe?”

“I thought I’d wait and maybe get home on Tuesday or Wednesday to give her a little bit of time to think about things on her own.”

“And what will you be thinking about on your own in the mean time?”

Roger just looked at Lisa with a somewhat blank stare. Then, “I don’t know; the gravity of things I suppose. I haven’t been able to think much about Ellie at all to tell you the truth. I’ve just been avoiding that issue altogether I guess.”

“I know how that goes.”

“Yeah.”

“But are there other issues?”

Roger just stared at Lisa blankly. It was no act of will required for him not to respond. He felt empty with nothing to pour out.

“Oh, Roger, I hate seeing you this way.”

He sort of came to then – shook his head. “I’ll be okay,” he said as he got up and strolled off to the office. He shut the door and sat down at one of the chairs at the table. He lay his head on his arms for just a moment and then sat up straight, grabbed Maria’s thesis, and only then decided to go lay back on his bed to read it.

At 2:15 Lisa knocked on his door. He asked what it was and she entered, asking whether he was aware of the time.

“No. What time is it?”

She told him and asked if he wasn’t going up to the school. “I don’t know,” he said.

“Is Julie expecting you?”

“Yeah. Probably.”

“Are you sure you don’t need to talk?” She paused then, having obviously seen the cover of Maria’s thesis that he had laid down beside him.

“Maria?” she exclaimed.

He followed her eyes to the monograph. “Yeah. Her thesis.” Lisa was clearly shaken.

“Lisa, her work is relevant to what I’m doing here.”

“Yes, I’ll bet it is.”

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After her brief statement she turned and was gone.

“Oh God,” Roger exclaimed. “Lisa... please.”

The door to Lisa’s bedroom clicked shut. Roger walked the length of the hall and stood outside her door for a while before saying, “Lisa, please listen. There is no betrayal involved. It’s physics. You asked earlier whether I needed to talk. I didn’t, but I do now.” He waited there silently until finally the door creaked open a crack, all very slowly with Lisa’s face filling that crack. She stood motionless.

“Could we go down to the kitchen to talk? There are things I need to tell you – not things I want to tell you, but things I need to get off my chest and that you need to hear.”

Lisa nodded and opened the door to come out.

Roger reached for her hand and walked with her. They sat at the bar.

“I’m sure you know that baseball players are not known for fidelity, but I was faithful to Ellie always. My teammates thought I was naive but it’s how I was, and not that much fun. It hurt me a lot when Ellie told me about her and Joe yesterday.”

“I was certainly aware of that Roger.”

“Yeah. Well, it wouldn’t be honest to say I didn’t know that we had drifted apart since I retired. I think she – well, me too – thought our relationship would just catch up as soon as we were together all the time, but it didn’t. I guess she had made a life for herself with me being gone so much of the time. I just made a life all to myself, no matter where I was or who I was with.”

“Did you know about her and Joe?”

“No. I knew she played bridge several days a week, but that didn’t bother me. Maybe it should have I suppose. Maybe I should have entered in, but I didn’t. So, yeah, the news yesterday came as a shock.”

“I’m sorry I made a scene about you reading Maria’s thesis. I know you didn’t flaunt it and I shouldn’t have gone into your room. She must be a very bright physicist and her work must have merit that you have to become aware of. My feelings are just raw I guess. And then after you teased about Maria coming for dinner I read more into your having encountered her than I should have.”

“Wait. I haven’t come to the confession part of what I have to say.” He sort of laughed and Lisa seemed to lighten a bit also. “I just sort of gave you the self-justification part of my story. You see, I am not without guilt. I’m guilty as hell. I maybe should just say, ‘I’m a really, really bad person’,” he sort of grimaced, “but I don’t really feel like that is a fair description either.”

“No, of course it’s not.”

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“Yeah, well... Just maybe you should wait till I finish because you will probably conclude that I am, in fact, a bad person. I am. You see, in addition to working with Julie, the last couple of days I have been seeing Maria.”

Lisa showed surprise. “You have?”

“Yeah. That’s where I was last night.”

“Oh.”

Roger sat there quietly for too long.

“You’re *working* with Julie and Maria separately now? Why?”

“There is so much to tell and no easy way for me to tell it.” He looked over at Lisa, comforted to see that she was apparently not outraged anymore.

“You see, I wasn’t doing physics with Maria.”

She was looking at him now without her more usual kindly expression, but still of trying to fully understand; maybe it was pity. He couldn’t tell. Then she suddenly smiled as though some humorous thought had crossed her mind.

“I remember when your dad first came home from New York. The kids were sort of worried that their dad had fallen in love with your mother and Eddie was the only one of them with the audacity to ask your father right out about whether he had fallen in love with your mother. And do you know what he said?”

“Yeah. He probably admitted it.”

“He did, but it made him very angry to have to admit it.”

“So... you know how I feel.”

“Not really.” She laughed. “What I do know is what how you feel looks like. Yes. I’ve seen it before. Your father and I sort of bonded over my understanding of his situation way back then I think and several times after that. He was easy for me to read once I realized that he was a pathological truth teller.” She laughed again. “Roger, you are *déjà vu* all over again – like Eddie never was. I think Jamie was probably more like your father than Eddie, but not as much as you.”

Roger stood up suddenly stepping around the bar to get a glass and fill it with ice and water at the refrigerator.

“I’m tired of ‘*déjà vu* all over again’. I don’t feel like Ray and Roger all rolled into one. Some things are very personal and involve just Roger no matter what Ray would have thought about it. Ray wouldn’t have done what I’ve done now with Maria, and I can’t be sorry for it.”

“No, no, Roger. Situations are all different, Ray and Helen still loved each other very much. But there’s an essence to things – an

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‘invariance’ as you said. It’s like ‘Whatsoever things are lovely’ independent of actualities.

Remember?”

Roger just stared at her in confusion to which she smiled a smile that in spite of all her capricious comments was soothing to his very soul – “if I have one,” he appended to his thoughts.

As they sat there watching each other, each equally confused about the other, Lisa’s phone rang. She rose to answer it. It was Julie. Roger could tell that there was an amiability to the conversation. He would have to decide whether to go up to her office today. He certainly didn’t feel like it and the interaction with Lisa felt as though it had just opened a flood gate that should not be closed until the waters had receded further than they had so far. Too quickly the phone was handed to him.

“Hi. I tried your cell several times and when you didn’t pick up I decided to call Lisa.”

“Yeah. I guess I left it in my room – well, Edie’s room. We’ve been talking. I guess it got later than I thought. I should have phoned. Sorry. What time is it?” He glanced at the clock on the stove. “Oh. Well, Lisa and I are into a conversation that could last a while. Would it be alright if we get back together tomorrow. There are some things that need to be talked out.”

“Sure. I’ve been having fun with some of the computations. I think you’ll find them interesting. It seems to me as though the traditional breakdown might end up with the atom having a slight negative aura at great distances rather than a slight positive. It seems as though there’s a negative ‘mote’, if you will, surrounding the atom when constructed that way.”

“Oh. I hadn’t thought of that possibility. I guess as far as gravity is concerned either a negative or positive well works the same, huh?”

“‘Yeah’, to borrow an expression.”

“It’s just slang and it’s not copyrighted.”

“Maybe not, but it should be.”

“Yeah, maybe.”

“I’ll let you get back to that conversation. Same time tomorrow then?”

“Yeah. Sorry I didn’t call. Bye.”

He walked over and placed the phone back where it belonged and then came penitently back to his pew in the current confessional.

“You’re not meeting up with Julie today then? Maria?”



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“No,” he hated that two questions were required. “I thought I owed you the opportunity to enforce whatever penance you think might be required of me.”

“That’s an ‘opportunity’? You make it seem like such a chore.”

“Yeah, well. Hitting long balls was a lot easier for me than this.”

“You always made that look easy. I saw Tommy made one look easy last night. What’d they say, 467 feet? Something like that.”

“Oh. Good for him. I thought he was pitching yesterday.”

“He was – he ended up with the win. But he also got three hits including that home run. The commentary was all about how soon he’ll be called up to the majors. Chips don’t fall far from the old block do they?”

“I never pitched and I wish none of this on Tommy.”

“Oh. They showed Margie there too.”

“Oh God.”

Roger shook his head showing his irritation.

“She’s beautiful, Roger.”

“Yeah, of course. Mom was beautiful.”

“She was, wasn’t she. Your dad was one handsome man too.”

“You think Margie looks like him too?”

“No, of course not. I know you’re teasing me because now I know she was adopted. But I always did think she looked just exactly like Lesa.”

“Yeah. Me too.”

“Where were we?”

“You mean before Julie called? Oh, Yeah. About déjà vu all over again and why I need your forgiveness I guess.”

“No, Roger. You would never need my forgiveness – probably not anyone’s ever but your own. You must never get beyond your own forgiveness.”

“I know you cannot have been pleased with Maria, or even Julie for that matter, and I should not be bringing these unpleasant memories up for you. But I think I have to continue in order for you to understand what’s going on in my life.” They were peering into each other’s faces intently then when

Roger added, “I am desperately in love with Maria.”

Lisa bounded to her feet, her stool screeching on the hardwood floor, as she turned to flee. Roger grabbed her, holding her close as she struggled to free herself.

“No, Roger! Don’t you know anything for all your brilliance? What is wrong with you men anyway?”

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“We’re men, Lisa. But it isn’t the way you must think it is. I just had to broach the subject honestly right off the top. I’m not good at subtlety.”

“Like your dad,” she said.

“Yeah, maybe. But by God am I tired of that ‘like your dad’ stuff!” he raged. “This is me, Roger – not Ray and certainly not Eddie. You have to address what I’m telling you as being from me and not Ray or Eddie or just plain ‘men’. It’s me Lisa, right here and right now in front of you, who wouldn’t hurt you for anything if I could possibly avoid it.”

She stopped struggling in his arms then and looked straight into his eyes.

“Okay Roger, give me your best excuse.”

He smiled. Maybe he shouldn’t have; he didn’t know. “Okay. There are no more one liners. No excuses, just facts. This may take a while.”

“Okay.”

“I know Maria was Eddie’s most recent affair. I know that. I knew that before I ever met her. I met her for the first time the night before last.”

“You didn’t see her sobbing at the luncheon?”

“No. I heard about it from several sources including her, but I’m sure I didn’t even see her at the funeral or the luncheon or I would have remembered. I was out walking the grounds most of the entire time. But what I learned and it makes sense to me is that Eddie died at her apartment as you told me but it wasn’t continuing the affair. They were arguing about her refusal to see him anymore. He was yelling at her when he doubled over with the heart attack. She tried to revive him following directions from the 911 dispatcher. Maria claims that she had broken it off months before – as soon as she had figured out that she was just the next in a string of affairs and that he wasn’t interested in her research in the least. He was stalking her. It’s the same story I heard from Julie about her affair decades before. These women have been victimized just as you have.

“I met Maria the other night as I was leaving the physics building and I must say that when I turned and saw her I was totally awestruck; I don’t know whether it was her beauty, the purity in her eyes, or just some sort of hunger in us both. I didn’t even know who she was until she identified herself and it wouldn’t have mattered who she was. It was electric. I was instantly in love. I know that’s crazy and that it is probably only an instance of me being a man and her being a woman, but that in itself is a fact that cannot be denied Lisa. It’s an aspect of

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‘whatsoever things are lovely’ whatever that is supposed to mean. It’s not a justification, I know, but it seems like a damned good excuse.” He gave Lisa kind of a pathetic chuckle. “So, yes, I guess that is an excuse.

What else can I say.”

Lisa did not respond, but seemed to give him her undivided attention and a minimally judgmental expression now.

“Anyway, once I knew who she was I told her that Julie had told me that she was the resident expert in weak interactions.”

Lisa broke in here to say, “Now there is an understatement if I’ve ever heard one. It seems to me as though her expertise should be acknowledged as in *strong* interactions wouldn’t you say?”

“Yeah, well.” He ignored the humor and implication. “She asked me to follow her to her office so she could give me a copy of her thesis and ‘that’ is what you caught me reading.”

“And last night?”

“Oh God. Yeah.”

“Yeah?” Lisa mimicked.

“Well, the night before when I was in her office she asked if I had heard that she had had an affair with Eddie. I admitted that I had. She told me about the heart attack situation and how hard the funeral and luncheon had been for her. She asked if I had seen her sobbing; I told her I hadn’t but she proceeded to tell me that she wasn’t crying on account of losing Eddie, but because of something Ellie had said when they met.”

“Ellie? Now it’s her and my fault?”

“No, no. What Maria said was that she had been holding up fine even knowing that everyone held her in disdain. That was until she made a comment to Ellie to the effect that it must have been exciting to have been married to me. Ellie had responded to the effect that she was rather bored with all that excitement and that she (meaning Maria) could have the rest of it for all she cared.”

“Oh my. I did overhear snippets of that conversation and I was appalled when I heard Ellie say that. So Ellie must have been planning to leave with Joe after the funeral.”

“Yeah, probably – she certainly pushed to have me stay on. Maria said that for some reason after all she’d been through that she just busted out sobbing and couldn’t stop. It was like the world was an awful production and her role in it was unbearable. She left totally humiliated as soon after that as she could get away.”

“She did, yes.”

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“I left her office very shortly with the copy of her thesis that she gave me. The situation was just too intense for me; I had to leave. I guess Julie saw me as I left the building because she had noticed my car was still in the lot when she got to hers. So yesterday I had to tell her this whole story with her little fits of jealous rage. Women,” he exclaimed laughing.

“And now me, right?”

“A little different, but yeah. It’s a little harder.”

“You still haven’t gotten into what transpired into the wee hours last night.”

“Yeah, well, would you believe that it began right after you left for church?”

“No. You went jogging; I remember.”

“Yeah, but first the doorbell rang right after you left. It was Maria.”

“Here?” Lisa seemed outraged. “On Sunday morning?”

“As I live and breathe.” He laughed; how could he help it? “Are you sure you’re up for all this? You had no idea what you were getting in for when you invited me to stay, did you?”

“No, I didn’t, but it’s been good for me – however bad it is. So, what’d she want? Did she come into my house?”

“No, she didn’t – come into your house. She asked me to go for a ride with her, and when a woman calls, you go – if you’re a man, that is.”

“Right. How could a ‘real’ man refuse a real woman?” Lisa did at least laugh.”

“Exactly. She wanted me to acknowledge that when I had first glanced into her eyes as we first met, that ‘something’ had transpired between us.”

“And you succumbed to that line of attack?”

“I already had,” he countered, “but she did the talking. She said she just wanted me to know that she had felt it too.”

“Oh, Roger, Roger, how could you?”

“How could I what? I did nothing. Nothing. She dropped me off at that parking lot at the other end of our jogging run and let me jog back.”

“That was it?”

“Yeah. Well, she told me she always stays late at her office.”

“Oh no Roger.”

“Yeah, and that would have been that... except for that god-awful phone call from Ellie that came later.”

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“Oh, Roger. This has to stop somewhere. Everything is so out of kilter.”

“It is, yeah.”

“What does Julie think?”

“I don’t have the foggiest notion if or how to tell her, but I have a premonition that there is no good path in that direction.”

“I don’t even know who to feel sorry for,” Lisa said wistfully.

“No, of course, one couldn’t know. Is it the cute little duckling or the starving eagle fledgling – or the unfortunate lady who has to watch ‘whatsoever things are lovely’.”

“Oh Roger. That’s what it is, isn’t it?”

“Yeah, I think so.”

They both sat looking at each other, obviously liking each other and the understanding each had of the other.

Roger asked whether she wanted anything to eat since midafternoon had come and gone. He was having another of those sandwiches, which he ultimately ate and washed down with a glass of milk.

Lisa allowed as how she needed a nap and very soon had gone off to her bedroom.



## 14 ONE LONG, LONG DAY

Roger had settled down to read some more of Maria's thesis, but after just starting he thought he should call her. Their conversation was short but sweet – as in very sweet to the taste – with reminiscences and promising promises for later in the week – if he could hold off that long he admitted to himself as he did also to her.

As he was just getting back into the challenging aspects of weak interactions in her thesis, his cell phone rang. It was Tommy.

“Tommy, hi! I understand you're making an assault on my records.”

“Oh, Dad! Dad!”

“What? What's happened?”

“It's Mom. She texted me; she's in that restaurant where the shooting is going on.”

“Where?”

“North Bend. A restaurant out by the airport. It's all over the TV.”

“What did the text say?”

“Here, I'll read it: ‘Tommy. Shooter in here. People dead. Joe's dead.’”

Only she didn't finish that last word. It was only ‘D-E’.”

“Oh God! I have to get downstairs to the TV.” His phone went dead, Tommy had hung up.

Ray was out in the hallway, stopped and ran to Lisa's door. He opened it and yelled, “Lisa, come downstairs.”

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Downstairs he fumbled with the controller. Lisa was there then and grabbed it from him. She had the TV on with the usual mass shooting coverage of cop cars, aid cars, sirens blaring, armed policemen, uninformed and fumbling announcers saying only what they always say and interviewing passers-by for snippets of pithy worthless comments.

“What are we watching Roger?” Lisa asked.

“Ellie’s in there. She sent Tommy a text message.”

“Oh no, oh no, oh no, Roger. No! No...”

His cell rang again. This time it was Margie. “Oh, Roger. What shall we do?”

“We better get up there I guess, don’t you think so? Was it just Ellie and Joe in there? What about Cecil and Marianne?”

“I don’t know. It must be just them, because Uncle Cecil and Aunt Marianne were flying in this afternoon to arrive at 5:30 is what I thought Mom told me. Mom and Joe were probably just having a bite to eat before they went to pick them up at the airport. We’ve tried calling Uncle Cecil, but he must have his phone off.”

There was another burst of gunfire that could be heard on the TV. Lisa was sobbing as she walked to the kitchen to get the phone and begin dialing.

Roger listened to Margie’s sobs in response to the coverage.

“We better arrange flights and get there as soon as we can. I’ll let you go so I can make arrangements.” Lisa was in the kitchen.

“What’re you doing?” Roger asked as he began searching for the airlines.

“I’m calling the airlines.” Then into the phone, “Oh, hello; I’d like the earliest flight from Palo Alto to North Bend, Oregon.” There was a pause. “That’s 6:45? Okay. And what’s the flight number?” She repeated it. “Thank you.”

“Thanks Lisa. I’ll schedule the flight on-line. I’m in there now.”

“Make it for two Roger. I’m coming with you.”

By the time they were airborne, a death toll had been announced.

Seventeen, not counting the gunman who was presumed dead also.

When they were in their seats with their bags stuffed in the overhead waiting for takeoff, Lisa asked, “Roger, what’s wrong with America?”

“That is so far beyond my pay grade; I don’t even know what’s wrong with me.”

“Soon the captain apprised them of the situation at their destination of North Bend. “For those of you leaving us at North Bend, I’m sure



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there will be information available at the desk. The scene is evidently static at this time, but hospitals and aid vehicles will be busy throughout the area.”

Roger tried calling Tommy but his line was busy. He tried Margie and got a ring tone. She responded, “Hi. Are you on your way?”

“Yeah. Lisa’s with me. Are you airborne yet?”

“Yes. Tommy is talking to Uncle Cecil. He’s at the restaurant, well, as close as he can get. They haven’t told him anything yet, but there are still people with injuries being taken away to local hospitals. He says he hasn’t seen Mom yet. You’ll probably get there a little before us. Tommy wants to ride with you if it’s okay.”

“Yeah okay. We’ll meet you at your gate.”

The cell rang as soon as he had hung up. It was Maria. “Does what’s happening affect you?” she asked anxiously.

“Yeah. We’re just about to land in North Bend, I’ll have to shut my phone down right away.”

“Was Ellie there?”

“Yeah, she was. Tommy received a text that got cut short.”

“I am so sorry Roger. Julie’s here too; she’d like to say something.”

“Roger; you have all our prayers if that makes any sense at all. Maria and I both feel for you. Give Lisa our best too if she’s with you.”

“Yeah, she is, thanks.” Just then the flight attendant walked by motioning for the phone to be silenced. “I have to go now. Thanks for calling.”

“They give you their best,” Roger said leaning over to relay the message to Lisa.”

“That is so nice of them,” Lisa said nervously squeezing his arm. “What will we do when we land?”

“I don’t know. I’ve never done this before, but we’ll join Cecil and Marianne to find out how to proceed. If we can’t tell anything in an hour or so, we’ll come back here to pick up the kids.”

The airport was a frenzy of activity. Cecil told Roger to wait and pick up Margie and Tommy. Lisa and Roger found the rental car venue and filled out the forms. Then they found their way to the gate where after too long they saw the two exiting the plane. Together they all made their way to different carousels in baggage claim. With direction from the GPS they headed toward the restaurant only to encounter detour after detour and road blocks. Coordinating with Cecil, they were able to link up several blocks from the center of police

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activity. Gradually they were able to establish authorization by family connectedness to get tidbits of information. At least one of the officers recognized Roger and made it his personal charter to expedite their requests for explicit information culminating in the devastating news that indeed Ellie was one of the now nineteen casualties.

Each of them processed this information in their own way, none of them well. Margie was nearly hysterical, Tommy sobbing silently with his arms around Margie. Lisa and Roger sat in one of the officer's cars in a stunned silence.

Eventually one of the officers approached Roger with regard to identifying Elinor Bonn and Joseph Taylor. He and the officer walked away together, but Tommy quickly joined them with Roger identifying him as their son. Roger encouraged Tommy to go back and comfort the 'girls' but he insisted on coming. The scene was grim. What Roger couldn't get over was the thought of the generations of his family who had had to endure this kind of procedure of identifying the dead. He had an overwhelming rush of the inevitability not only of death, but of violent brutal deaths experienced by his family.

Then Margie had her arms around his neck saying, "Oh bro, I am so, so sorry." There was a flash as some reporter immortalized the moment with an iconic photo that would forever be linked on the internet with that of his parents' embrace after Ellie's grandmother's funeral. The two photos are so similar that it was more like two frames in a sequence – truly eerie. *Déjà vu* all over again.

"We must get to bed," Cecil said, speaking to all of them. "Tomorrow will be a long day."

A long day? *A long day?* My God, Roger thought, at 12:01 AM I was in bed with the most beautiful woman I could ever have imagined, who loves me to the depths of her soul, and yes, happier and more filled with joy than he ever thought he could ever be, and by 11:59 PM this same day he was in the depths of despair, a hell deeper than he could ever have imagined it to be. Yes, 'tomorrow will be a long day' Cecil – the eternal day of hell that had already begun.

All six of them signed into a Marriott close by. There were three rooms available. Lisa said, "Roger, I need to be in your room if there's one with two beds." She insisted vehemently. Then after sitting together in the lobby as zombies for an hour or so without any of them having much to say, they all went to their rooms. Roger and Lisa lay back on their beds and looked up at the granularity of the dark ceiling for hours in silence.

The only comment by either of them was Lisa's having said softly, "Roger, please don't try to place any meaning on this event." He lay

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there in the darkness wondering exactly what she meant. Lisa was deeply religious, well spiritual at least, he preferred thinking. She saw meaning beneath actualities. If Ellie's death has no meaning then how could her life or life itself have meaning? This 'actual' event has changed all of 'whatever-could-have-been' for each of them, it completely changes all of their futures, and it reaches back to change the meaning of everything that preceded this day. It has completed the change of a paradise he believed in a long time ago into a living hell.

His mind wondered off into memories of childhood with Ellie, to when he first knew he was in love with her, to when she informed him of the fact that their love need not be taboo, that they were not in actual fact biologically related. What a wonderful awakening that had been. How had they ever let that slip away? So what could Lisa mean with regard to him not placing meaning on this day? If this day with its violent extremes was not meaningful, what the hell could be meaningful?

Eventually he must have fallen asleep because when he got up to go to the bathroom it was getting light. Lisa was breathing deeply. He lay down again wondering, anger prevailing now, now it wasn't why some crazed gunman would choose to take so many lives in his own demise, but why Ellie had been there at that particular place with Joe Taylor. Joe Taylor. Why had it come to this as though 'this' had been caused by willful acts of the victims? It made no sense. He finally forced himself to accept that thinking like that made no sense. He must indeed 'place no meaning on this event'. But one does; he did.

He always would; how could one not?

"You alright?" Lisa asked turning to face him now.

"Why shouldn't I try to place meaning on this event?" he asked defiantly. "Because once again we are just ducklings in the scheme of things."

"Then who are the god damned fledglings?" was his despondent reply. "Who is the beneficiary of this debacle? If there is 'good' hidden here somewhere, where in the hell is it." He was on his way to the bathroom.

"I don't know," she said. "It makes no sense; one can't make sense of it."

Their tomorrow was indeed a long day. And the next tomorrow was an even longer day. And the next, and the next, and in fact it seemed as though each day was longer than the last with the limit obviously being eternity. Each day, to the extent that they could be

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demarcated as separate one from the last or the next, could be separated only by brief encounters. His cousin Leonard and a new wife, not the one with whom Ellie had been such friends, had come to the ceremony, a 'celebration', he guessed it was called by someone – it must have been Lisa – for throwing Ellie's ashes into the wind down by the lake in front of their place – his place. Julie had come up for that occasion. She said she had run a bunch more computer runs of various constructions of the octahedral neutron that he would find interesting. He *wouldn't* he had told her rudely. He didn't give a damn. She was working with Maria now she told him. Maria would have liked to come but had thought better of it.

Roger stared at her with a blank expression. Julie hugged him then with tears streaming down her cheeks and swiftly moved on, tears still welling up in her eyes. She then began to talk awkwardly to someone else while wiping her eyes.

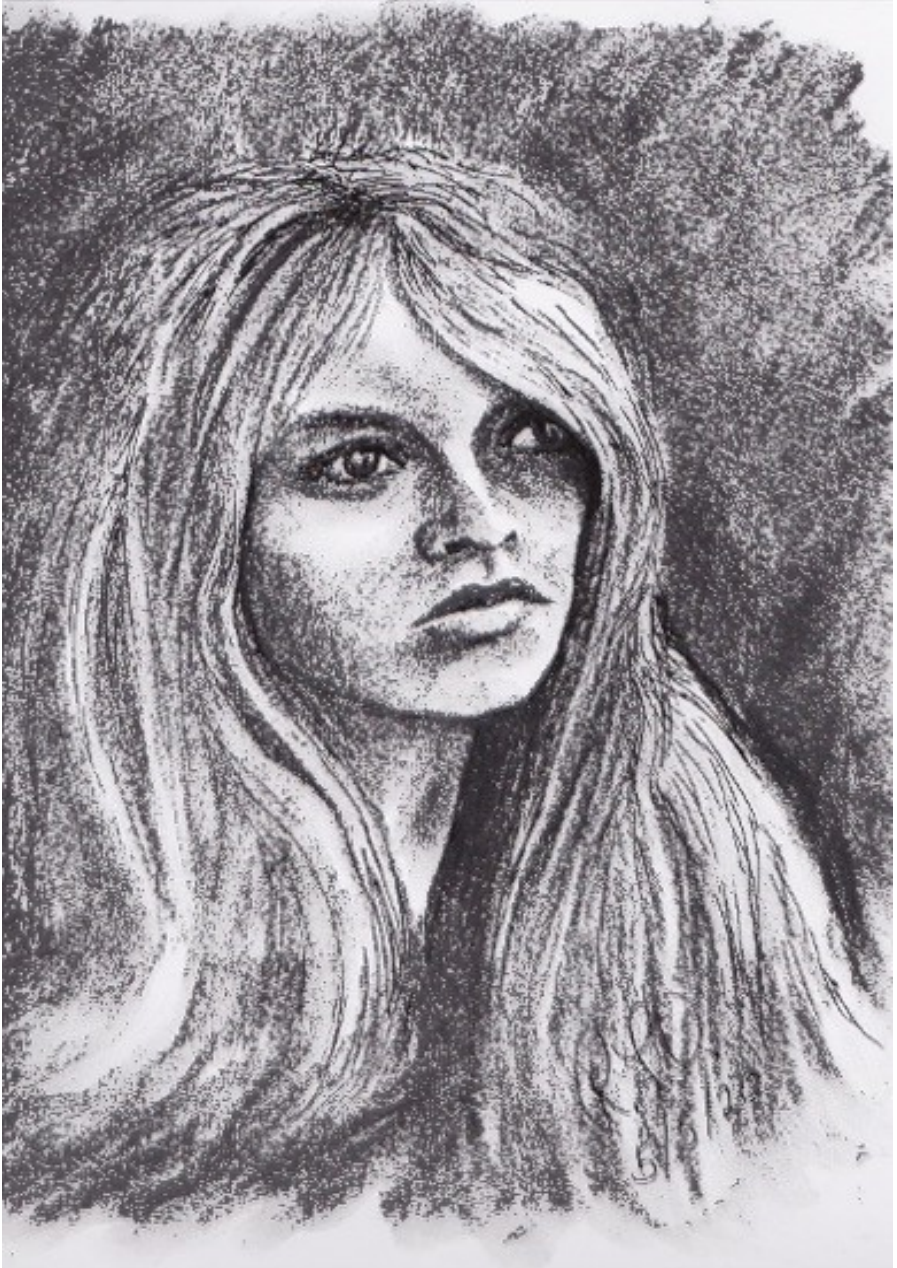
Margie and Lisa stayed on for a few days. Margie left first to follow Tommy who had to spend a bit longer in the minors to get back into his game. Margie, who Roger had noticed always referred to Ellie as 'Mom' now, was evidently needed for that. Tommy needed her. Roger understood that.

Lisa was for the most part just a silent partner sitting in their overstuffed chairs overlooking the lake and the raven who roosted on the tallest snag out in front of their – his – place. Then one day she left; that was the demarcation of that particular long, long day in the long day sequence.

Somewhere in the sequence of long days and nights Roger allowed himself to address thoughts of Ellie – memories that had been fond but must be rekindled, re-evaluated, and reaffirmed, or denied. They must be rescued from bitterness or as an only means to restore his entire previous life from falsehood. It was a vague period in the endless days. There was so much of what his life had been about, what he had always thought had been good about it, what had been all there was of it. 'Now' was never a new day but diminishing memories of the past. Without a past, it seemed to Roger that he barely even existed in the present. The 'future', whatever that was could not exist without a 'now', which could not exist independent of the past. It was indeed a conundrum, although he did not formulate that position; he merely struggled forcing himself to remember Ellie as the bubbly cuteness he had loved from the moment he had become aware of anything at all. His emotional reactions to memories of Ellie vacillated between fondness which could then be shattered by memories of Joe Taylor demanding he 'let it go'.

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Once Jamie and Judy came upriver to see him. They offered to help him take care of Ellie's clothes and other artifacts of a feminine presence in the house. Neither of them looked well Roger noted.



A year can go by without noticing what happens to everybody else. Judy died. He noticed that and did attend the funeral but that was kind of just an additionally melancholy demarcation. A mere corollary of Ellie's death – a 'refresher' of the fact. It must have been some

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considerable time after that when Margie came back up the canyon to force him to be her escort to the Bay area for Tommy's debut as a Giant. Roger didn't want to go, but she insisted, doing all the packing of what she thought he should take. Lisa met them at the airport and had them stay at the 'Edward Bonn mansion' as he had gotten used to referring to it. Lisa was motherly as only she could be. She set him up in Junior's bedroom adjoining the dean's office where he had spent the days prior to the tragedy. He sat in there alone for an hour or so with both doors closed and re-thought thoughts that had occurred to him back then, none very pleasant. Maria's thesis had been placed on the stand by the bed – no doubt purposely by Lisa. His mind drifted off once in the direction of Maria before he could correct its direction back to what had become his catatonic mental state.

At the game in which Tommy came in as a pinch hitter, to then pitch an inning in relief, he had hit a double driving in a run that put them ahead, giving the starting pitcher the win and Tommy a ball for his eventual mantel. The TV cameras panned to Margie, Roger, and Lisa sitting in the stands, with the announcers expounding on the tragedies that had haunted the Bonn family. They emphasized the years that had been put onto Roger's face in just the last year. "He's lost considerable weight; you can see the gray in his hair" they said. "He has understandably refused to come into the booth or be interviewed. We understand."

Across town Maria watched the game and the announcers commenting on the three fans she knew in the crowd. She had told Julie that she would prefer to watch it alone. She cried each time they showed 'Tommy's remaining family'. Julie had called once to ask her how she was holding up. "Not well," she admitted, "not well at all."

"Me either," was all Julie could contribute.

The Giants would be in the playoffs again with Tommy having become an integral part of the team. The summer raged on into fall, another record for high temperatures throughout California this year with raging wildfires, the world really is going to hell Roger thought. Meanwhile he sat in his own private hell up beyond the Canyon Creek dam overlooking the waters that had flooded his father's Garden of Eden that had been destroyed by his grandfather Adam. It was another series of events that he could not imagine as having no meaning no matter how good or evil the people involved had been. Beyond the foothills the sky shown red from the wildfires in the Northwest, with heavy smoke all day long to corroborate his private hell.

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Lisa called frequently – he guessed it was ‘frequently’ because those phone calls were all there were to prove that days were passing or that he was even alive. Then one day she called to tell him that she was coming up to spend a few days. He tried to dissuade her. “I’m fine you know.”

“Yes, of course you are dear, but I need a break and it’s so beautiful up there overlooking the lake.”

“Dam reservoir,” he corrected, “and it’s smoky up here.”

“Yes, of course. Here too dear.”

Another in the continuing sequence of the long, long days was interrupted by the doorbell. It was Lisa, all smiles. Behind her were the deep brown eyes into whose depths he had fallen before. He was immediately swallowed again drowning in tears.

This day then was the end of the eternity of hell. Maria was quickly tight in his arms. Tears that had not come through all the unending sadness and anguish came now. He could not stop them. They sobbed together.

Lisa squeezed by them to go back to the car to get the groceries they had bought on the way over from the local airport. She squeezed by again and again with sack after sack as Maria and he stood there as though a statue commissioned to Rodin. Holding Maria still, but coming up for air and laughing now through his tears, Roger said, “My God Lisa, are you staying for a month?”

“Just probably,” she said, “and if you and Maria can’t agree on forever, I will be sadly disappointed in you, and I might just have to stay instead.”

Roger looked into Maria’s eyes again to see if he could see forever there. It was still there. So life began again right then, like the first primordial morning, birds chirping and all that, right above the waters that had engulfed an earlier paradise. It was as if he had never lived before. They would have to change the Wheaties box on which he had appeared; he was *another* new person now. He was now who he wanted to be.





# PART III



## 15 A NEW START

Happiness is not a thing... it is an adverb we try in vain to convert to a noun. It may happily apply to certain intervals of our lives, but it does not adequately describe any of the events that occur during such an interval. Good writers avoid adverbs as superfluous. But it does pertain at times and even though it may not be the secret to everything – or anything. It isn't, of course. It makes neither a meaningless nor meaningful life. It is just a temporary mode of being. It is certainly not something that can be found by seeking. Happiness happens – or it doesn't. When it's gone it takes a long, long time to re-happen. But it can. Meanwhile, the earth continues in its orbit and whatever else happens just happens too.

The Giants lost the National League Championship series, but Tommy had excelled. Following their loss he and Margie came up to The Creek to spend a few days. There was a bit of adjustment for both Margie and Maria, but Maria got more comfortable with the banter between Margie and Roger before very long, realizing that it was a private fight that both of them had sort of come to enjoy. The two women became close friends with a lot of educational baggage in common. Tommy and Roger became closer than Roger thought they had ever been, fishing, Kayaking, and hiking the cascades. On several occasions all four of them Kayaked the many miles to the far end of the reservoir where it once again became the cascading Canyon Creek.

Tommy and Margie had purchased a house in San Francisco and were already contracting the remodeling. So that when they finally departed as the cold weather approached, it was to a new home of their own. Margie had been looking into a teaching appointment,

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exchanging phone calls, emails, and text messages daily during their visit. In the end a position was secured at Sofia University near Stanford to teach in a new curriculum of an emerging Psychological Anthropology department. The possibilities of such a course brought many laughs to the four of them.

Earlier Maria had, upon Lisa's encouragement, tentatively quit all her direct responsibilities at Stanford pending her welcome to Canyon Creek. With that welcome secured she had notified dean Bender to complete the severance. Despite his remonstrance with regard to her more wisely taking a sabbatical that he could arrange, she insisted on loosening all ties in favor of her new one. She had secured an agreement with Julie much earlier to be a third party to whatever on-going effort Julie and Roger still had in progress and to spearhead efforts to realize Roger's intuitions with regard to the nature of quark reactions. In his absence they had accomplished a considerable amount with numerical integration Roger found out. He had some catching up to do. Maria still had an association with the university that would allow her and Roger, to use the library and other facilities at any time and join in with Julie in on-going activities as they pleased.

So when Tommy and Margie left to go back to California, he and Maria decided that they would start out fresh, working side by side. That very next morning Roger was amazed at how different he felt upon awakening. It was different than any feeling he could remember ever having felt. He was a different person. He was who he would always have wanted to have been working side-by-side with someone who understood everything he knew and much more. The years of forced camaraderie with team mates could not compare, nor of course the tension following his retirement. He felt good about what he, Maria, and Julie were attempting and he was thrilled to be doing it all with Maria.

So after Tommy and Margie had returned to California, Roger and Maria decided that they would start afresh, working side by side on the assault on gravitation. That very next morning Roger was amazed at how different he felt upon awakening. It was different than any feeling he could remember ever having felt. He was a different person. He was who he would always have wanted to have been working side-by-side with someone who understood everything he knew and much more. The years of forced camaraderie with teammates could not compare, nor of course the tension following his retirement. He felt good about what he, Maria, and Julie were attempting, and he was thrilled to be doing it all with Maria.



Julie seemed in good spirits when they skyped into her. She seemed overjoyed as she said, “So today we get on with the rest of our lives, right? Yeah?”

“Absolutely right. No ‘yeah’ about it.” Roger laughed as he and Maria bumped up against each other.

“You two,” Julie said. “I guess I have to be happy for you. Well, let’s complete our assault on Mount Gravitation.”

“So, is there anything new or can I just begin reviewing the things you sent before?” Roger asked.

“Just catch up, would you? I think you know your way around those files don’t you Maria?”

“Yep. I’m on top of the mountain and the mouth-to-mouth worked, so

Roger’s completely out of catatonia so we should be up to speed shortly.”

“Yeah. I’m Baach! Talk to you again tomorrow.”

As they clicked off of their conversation with Julie, Roger asked whether Julie had ever told Maria about his reservations about the decomposition of the neutron.

“Yes. She did. She also told me why she was so convinced that your preferred breakdown wasn’t valid.”

“The exclusion principle, right.”

“Right. But I persuaded her to do those numerical runs you wanted done and she did it.” She smiled, “It worked, so maybe she isn’t so exclusive anymore. I’d like to hear more of your arguments first-hand though.”

“Well, she pretty much convinced me that I was wrong, but you know how sometimes a notion just won’t go away? That one won’t for me. I think there’s something wrong with the accepted structure.”

“I see that your and Julie’s indivisible distribution works better with the structure you proposed; Julie even recognizes that. I’ve tried to see how we could make it consistent with what else we know about the neutron, but I haven’t been able to – yet. Julie told me that you see a static antineutrino as a constituent part of the neutron as a possibility. Is that really so?”

“Yeah. I did, but I’m not so sure anymore. I think another one of the options we discussed is better – a neutrino strikes a neutron precipitating decay or it’s the two halves of the octahedral neutron striking each other that provides the missing momentum transfer that’s attributed to the neutrino. There are several possible alternative conjectures.”

“So would three of the downs effectively constitute a lepton nestled within the neutron?”

“I certainly didn’t see it that way, but if it satisfies a conservation law, then yeah okay. One of the options I was coming around to was the idea of the neutrino impacting the neutron and merging with the three downs as a part of the newly created electron.”

“How do we preserve leptons with beta decay?”

“I don’t know. Like I said, the other way is fine with me until we figure it out. But I’m thinking maybe the neutrino *is* the lepton aspect of the electron. A neutrino and a bunch of quarks on one side of the equation and an electron on the other.”

Maria laughed, “Does it worry you that we might have our first fight over leptons?”

“You mean the first of the great lepton wars? I think I would give up before it got into that kind of a war.”

“I don’t know; if makeup sex is any better than what we have had, it might be worth a try.”

“It isn’t really good for you?” Roger asked diffidently.

“You’re talking sex now? If it were any better, I would be in a permanent state of moaning and groaning and the issue with the leptons would never be resolved.” She laughed at him. “I just thought that if you could top your previous performances, well... oh my God! Out of the park! It might just be worth it.”

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“Yeah.” He was tired of the frivolous banter. “Doesn’t it seem strange to you that establishment considers the down quarks to be more massive than the ups?”

“It never ever bothered me before but after seeing what you and Julie were trying to achieve with the (and I quote) ‘indivisible’ charge distribution and your intuition regarding deconstruction of the electron, I can see why you think the way you do. The positive charges in the more massive nucleus would have to have the larger self-energies for your scheme to work. Isn’t that what you’re on about?”

“Of course. But I see it more as a solution not a problem to be ‘on about’ as you say. That damned ‘gluon’, talk about a patch on a patch.”

“I think I should tell Margie that you desisted from responding with your inimitable ‘Yeah’, replacing it with the more traditional ‘of course’.” Maria laughed again as she did so often now that they were together around the clock and forever – ‘indivisibly’ he thought.

“Yeah, maybe you should. It would add a new level of happiness to her life.”

“As a little tangent here, how come you two have so many issues? If she was adopted at about the time you left home to go to Stanford, where do the sibling issues come from. I know your parents died at about that time also, but even that should have made it more like Margie was one of your children than a sibling with whom you would have a rivalry.”

“Exactly. So why’s she marrying her brother?”

“Why not? Is it because she looks so much like your mother did at that age? Is that what bothers you? Is there a nature versus nurture issue here?”

“I’d rather fight about leptons.”

“Why does she look so much like your mother anyway – and evidently *act* so much like you mother if she isn’t biologically related? Is that what bothers you so much? You look very much like your dad, but Tommy looks like you and Ellie both... and Cecil, but she looks just like your mom. I mean spitting image.”

Roger sat silently looking out over the waters.

After what seemed like a long while of Roger still staring off into the distance, Maria broached what she knew must be a sensitive subject cautiously, “Roger, I know your family has had terrible tragedies and I’m only here because of one of them, but...”

“No, you’re not!” He interrupted angrily. Then he turned quickly and continued, “You and I are not together *because* of that mass shooting. We are together in spite of it. We’d have been together

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sooner without it. I was all yours the day before it happened, and I would have been all yours forever no matter whether you decided you wanted me or not. So let's not ever go off in that direction."

Tentatively Maria started again. "Thanks for loving me unconditionally; I know there had to have been sound arguments against loving me. I've loved you that same way from that first time our eyes met and onward forever. I felt that our being together was how it had to be. But there has to be issues when something awful like that happens. There had to be family secrets you and Ellie knew that I don't. Guilt even. I feel handicapped sometimes by not knowing the details of what worries you – particularly about Margie and Tommy. Once I understood the situation everything about their relationship seemed so ideal except for your perception of it. That's what I don't get." Again Roger turned to stare out over the waters.

"You need to trust me and talk to me as the one who really cares. Are the secrets buried under all that water, Roger?"

"Yeah. Most of them."

"What about the rest? That water was there before you were. It was there before both Ellie and you, and before your mother. You, Margie, and Tommy are the only ones left who know the rest of all those secrets, aren't you?"

"Yeah." Roger said still looking out over the reservoir, remembering Margie telling him that Sharon had died shortly after giving her the adoption papers. "Maybe Leonard. You can ask Margie about that when you see her."

"Leonard's your mother's younger half-brother, right?" She continued after his nod. "I'm not ever leaving you and I desperately want us to have your baby whether you ever marry me or not. But will I ever be part of it? I mean part of everything."

"The secrets?"

"Yeah," she said. "Can I just say 'Yeah', just to feel closer to you.?"

"Yeah." He smiled, looking at her now. "But it's not like I'm keeping the secrets 'from' you, it's more like I'm 'sparing' you from being a party to them."

"Don't spare me then; I want to be a party to everything about you."

"Will you marry me?"

She brightened immediately. "In a minute! Like yesterday! Like the first time our eyes met."

"Then let's do it."

"Okay, when"



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“Now. Let’s drive down river to get our license.”

Maria sprang to her feet. “Let’s go!” she exclaimed.

But Roger sat, once again looking out over the reservoir. After a deep breath and a sigh, he said, “You have to know the secrets before you have the information you need to accept my proposal.”

“Why? Nothing will ever change my mind.”

“It might.” He thought for a moment and then just blurted it out, “I’m a clone.”

Maria stared at him for some time. “And so is Margie?”

“Yeah.”

“So that’s the secret?” She frowned and seemed to think about the ramifications. “You mean I’m in love with the original Ray Bonn?” She hesitated again. “That would break Julie’s heart,” she noted, laughing finally. “Do you know that? And Tommy is in love with your mother. Is that what’s really bothering you, Roger?” She continued laughing at him.

“No. You’re in love with an inferior copy and so is Tommy.”

“No, I’m not and neither is he. I’m going to marry the one and only Roger Bonn, greater in every respect than even Ray Bonn or anyone else.” She threw herself at him and clung as though to life itself, as tight as though to a lifeline that could be her only salvation. Loosening her grip slightly, she stared into his face and said, “You have Ray Bonn’s nuclear DNA and I assume you have Lesa Sorensen’s mitochondria – not a bad combination. You trace directly to the new mitochondrial Eve. I guess that’s why you are not the ‘spitting image’ of Ray Bonn. You are totally unique.”

“Okay,” he said, dismissing her frivolity and kissing her as he spoke. “Now you know it all except for the ugly details of how this was imposed on my parents without their knowledge.”

“Surely you’re kidding.”

“Yeah, all of a sudden I’m going to start lying to you? Or joking? Surely *you* have to be kidding. Of course I’m not joking.” He was irritated now. “This is really sad stuff in case you didn’t know it, not something I would kid about. It’s what killed my parents.”

“Oh,” she said. “I’m sorry; I really am. So I guess you’ll have to tell me the whole story. How would I know otherwise?”

So they spent some hours going over the fateful periods of Roger’s life with thoughts of Ellie having discovered the facts of his identity that felt much better than any recent memories of her. By noon the two were of one accord with no more secrets from Roger’s past.

Then Roger demanded a family history of the Parinos. It was rather more traditional for a fast-track physicist, tracing back to big

names in nuclear physics at the Fermi Institute. She told him that she had learned the standard model of particle physics more or less as most kids had learned to play with Legos. The Lego analogy intrigued him such that he went off on that tangent immediately; it would occupy much of their thinking on into the future with regard to indivisibility of fundamental particles. Maria suggested that if they were going to repeatedly address the possibility of an alternative version of the quark constituents of matter, that perhaps they should address those issues as a completely separate *Lego industry* endeavor, admitting that it was not directly related to the gravitation issue at all, and be done with it. Julie could be a part of that too if she wanted, but it was separate. Whatever results they came up with could then be applied directly to the gravitation problem.

“Does that mean that you’re giving credibility to apprehensions concerning the standard particle model?”

“Yes. I think about it more than I should. I’d rather just plow into it now and either be done with it or proceed directly to propose a new scheme,” she said. “You don’t seem to be able to let go of it and I do suspect you may be right about there being a necessary change if we are ever to be successful with the gravitation theory. Julie probably won’t like it, but we can do that part by ourselves if we need to. So what do you think of just looking at those strange decomposition possibilities of yours without telling her for a while.

“Yeah, it sounds like a good idea to me,” Roger smiled. “But have you forgotten about the question proposed to you earlier?”

“I said I would have married you yesterday or a year ago, but today will do. Should I change or do I look okay?”

“You always look great. So let’s go on down river to see if we can cast this thing up a little in Concrete.”

“Okay, but are you trying to scare me with mafia talk or are you *trying* to be funny? Mafia talk gets close to secrets in my family.”

“Yeah, sorry. Just trying to be funny, I guess. My dad had to go to the town of Concrete to get married the first time. You’ve probably never seen it since you flew into the local airport, but Concrete is on the way up along the Skagit river. Anyway, my mom told me about what he told her about it. Among other things he told her about that occasion was that Helen (his first wife) had explained to him that Concrete had previously been called Cement after the Portland Cement Corporation who were extracting calcium oxide and bauxite from the hills behind the town. Dad had asked Helen why they changed it and she told him that eventually cement always turns into concrete so there was no choice.”

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She laughed. “You’re kidding.”

“No. That’s what she told me. She also informed me that the original name of the town was Minnehaha. So, yes, laughter is in order.”

“More secrets,” she smiled. “Helen was Ellie’s mother, right?”

A sadness came over Roger producing a shiver.

“Oh, I’m sorry.”

“Yeah, it’s okay; I have to get used to it. But no, Hellen was Ellie’s grandmother. Her Mom was Allie – short for Alice, I guess, although actually I guess it isn’t shorter, is it? She died of early Alzheimer’s we were told – that wasn’t too long after my parents died. Anyway, someone will mention those connections when we get into town.” He paused. “They always do and it’s clear that I’m supposed to react differently than I do.”

“How *do* you react?”

“Awkwardly. There’s nothing I can say.”

“Margie’s never said anything to me about North Bend or Sun River or whatever it’s called. Did she know that it was over between you and Ellie by then?”

“I don’t know, but I’m pretty sure she did. I assume Tommy had to have known. Ellie implied that he was on-board, but Margie hasn’t said.”

“She probably wouldn’t say, would she? Is that awkward too?”

“Yeah, it was – has been, at least right off – still is. I have never known how to act,” he paused here again. “I guess the fact that I use the word ‘act’ is a major part of the problem. I felt true anguish, horror, and anger all mixed together with a profound grief that seemed to take forever to get out from under. But I guess it wasn’t actually all that long. You and Lisa sort of terminated it for me.”

“It seemed way too long. Was it too soon?”

“No. No, no. It was way too long coming. I was drowning in it.”

“I can’t imagine all the emotions you must have felt; did the fact of our so recent intimacy make it worse? Guilt I mean; I felt so guilty, Roger. Lisa and Julie helped me. Lisa seems to know when things would be right, doesn’t she? She told me that you had confessed about us. I guess she had something at least a little bit similar, huh?” She paused. “That all feels so awkward and embarrassing to me.”

“Yeah. She does know how to work human problems. Those were truly embarrassing facts to address, but the most wonderful facts at the time and no matter what happened after, they always remained wonderful.”

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“Do you think it would be better if we don’t cast this thing in concrete yet – for the perception, I mean.”

“No. I’m tired of worrying about perceptions. They won’t ever stop.

Anyway I want ‘forever’ to at least officially begin.”

Maria had walked off to the closet in the entry way to get her coat. Roger followed to get his.

“Shouldn’t we at least call Tommy and Margie?” Maria stood with a hand on the doorknob but looking back questioningly at Roger.

“Yeah, I suppose. I wouldn’t want Margie to have one more reason for a conniption fit.”

“She wouldn’t. But don’t you think Tommy has a right to know before it happens so he can say, ‘No, no, no!’ before it happens?”

“Okay. Do you think Tommy said, ‘No, no, no!’ when Ellie told him about Joe? I’m sure Margie didn’t.”

“Do you think anyone should – in a case like that I mean?”

“I suppose not; it’s extremely personal, isn’t it?”

He could hear the phone ringing at the other end and then just before the number of rings that would have made him wonder about whether to leave a message of this magnitude, Margie answered.

“Bro,” she said. “What’s up?”

“Is Tommy there?”

“Yeeaaah,” she dragged out the vowels. “Tommy,” she yelled. “Again I ask, ‘What’s up doc?’”

Then Tommy had the phone. “Hi.”

“Did your mother tell you she was leaving me?” Oh God! He thought. What in the hell had he blurted that out for?”

Very quietly and with hesitation Tommy responded, “Yes.”

“Oh.” He winced, wrenching his mouth. He didn’t know what to say next.

Maria grabbed the phone from him. “Hi Tommy. Um... that wasn’t really what your father had planned on talking about.” She paused here.

“Yeah, I know Maria,” Tommy responded. “Sometimes it just hits you.” Then Maria could hear Margie in the background. “What in the hell is going on up there?”

Then it was Margie on the phone, “What’s going on Maria?”

“We thought you should know we’re going down to Concrete to get our marriage license.”

“Oh, I’m so happy for you. Tommy, they’re getting married!”

“Oh God!” Roger was sitting on the bench in the entry hallway looking down shamefully.

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“Roger, they’re happy for us.” She clicked the speaker on.

“That’s good news Dad,” Tommy said.

“It truly is,” Margie confirmed. “When?”

“We’re at the door with our coats on,” Maria answered.

“Then just go and get this done. You have all the well-wishing you could possibly ever want. Just come down here for a honeymoon and maybe we could plan a bigger trip together. But you go now.”

It had been mostly Margie, but Tommy’s voice was mixed in there too.

As they crossed the bridge and both looked up at the face of the dam that had ruined a paradise no one alive remembers, Roger spoke to break what had been a lengthy silence. “She told them.”

Maria laughed. “A hell of a way to find that out.”

“Yeah. I don’t know. It’s why I have to keep my mouth shut. Interviews after a game are easy. It’s like a multiple-choice test rather than an essay. I’m just not good at one-on-one.”

“Yes, you are. You’re just not comfortable with hiding things.”

“Yeah. And everything in my entire life has had to be hidden. A person should be able to talk about his background and aspirations without always having to worry about letting some damned cat out of some damned bag, don’t you think? Can you imagine any other species that has to worry about generations of behavior rather than the current moment?”

“No, of course not. But they aren’t completely in the current moment. Ducks mate for life they say.”

“Yeah, however short a period of time that might happen to be.”

“Oh, I guess that was a crude example.”

“No, no. It’s fine. I guess Ellie and I weren’t mated for life although I had thought we were. But birds...” He stopped and looked over at Maria. “Mom told me a weird anecdote about my father. It had to do with him and Julie – Davidson. I think Dad and Julie loved each other, always had, from way back up the Creek before the dam. Anyway, Julie lived with us that last year before they died. I guess that started at about the time Ellie’s biological grandfather died. Mom wasn’t at the funeral because Grandpa Sorensen had suddenly had to have open heart surgery that weekend and Mom went to be with him. So Julie sort of played housewife for us for a couple of days. I was at school and then gone to basketball camp a major portion of that time, so they were alone.”

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“So Ray and Julie, whom Ray was madly in love with, were together alone for a few days?” She laughed. “While the cats away the mice will play?”

“Yeah. Well, not really. Dad was a prude. Mom came home by surprise one night,” he paused again. “I guess I had basketball camp later because Julie and Dad had been over at Aunt Allie and Uncle Tom’s playing bridge after my football game. Mom got back from Boston that night and surprised them.”

“More or less ‘in the act’?” Maria laughed.

“Oh no. Dad was a prude. Did I say that already?”

“Yes, you did. He was like you were before I came along and changed everything.” She laughed. “So where is this story going then?”

“Well, dad couldn’t hide nuthin’.”

“Nuthin’?” she mimicked.

“Yeah, absolutely nuthin! So... as mom and dad were getting ready for bed Dad told mom that he and Julie had napped on their bed in the afternoon.”

“Napped together? As in ‘slept’?”

“Yeah, but not in a biblical sense.” Roger was laughing now too.

“And your mother believed him?”

“Oh yeah. There was no ‘there’ there. That was just Dad.”

Maria looked expectantly: “And birds?”

“Oh yeah. Mom laughed when she told me this. She said that Dad implied that something ‘might have’ happened if she had stayed away longer. He told her that the situation reminded him of an article he had seen in some scientific journal – maybe it was *Nature* – about the emotions of birds.”

“Okay...” Maria waited.

“Yeah, well, they did experiments with sparrows to study how they handled grief.”

“Good grief.”

“Yeah. They mated these two sparrows up for a while and then they killed one of them to investigate the effect on the one that was left.”

“And...”

“Well, the bird went into this mournful song and showed all the signs that a human would exhibit in a similar situation.”

“That’s awful.”

“Yeah. But apparently when introduced to another bird after a bit it mated just as it had before.”

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“What are you telling me Roger? I could have been just ‘any’ bird. Aren’t we heading to Concrete so we can be properly ‘mated’? Should I be scared?” She laughed, but not as convincingly as she had.

“Yeah, well, no, we biologically mated before my other mate died – and so did she... the bitch.” He laughed. “This is just the story that my Mom told me about my dad; I thought you wanted to know all the secrets, so don’t interrupt me.” He chuckled. “Anyway, the scientists killed the second mate, and the original bird went into the very same grief behavior that it had when its first mate was killed.”

Maria just stared at Roger appalled. “Roger!” she exclaimed.

“I’m not done yet.”

“That’s just what I was afraid of,” she said.

“They did it three times in one day and the sparrow showed the same signs of grief and recovery each time.”

“That is awful! What happened, did they run out of birds?”

“Yeah, I know, well, I mean I don’t know. And Mom was outraged too and asked him why he was telling her about the grieving bird to which he told her that it seemed to him that evolution has set us all up to survive such situations.”

“Roger, I don’t ever want to hear about that again. I want to be your one and only forever and ever and forget about the rest.” She seemed distressed.

“You are! For God’s sake Maria, don’t you know that?”

“Yes, I thought I did.” She smiled. “But is that true about the birds? Was your dad telling your mother that if she had stayed away any longer that he and Julie would have been mated up.”

“Yeah. To the extent that I remember it correctly, it’s true about the birds and I think Mom was just informing me about how much dad and Julie were into each other and she didn’t seem to care much.”

“I would care.”

“Yeah, I know. She didn’t. But we’re coming into Concrete.”

“Oh,” she laughed. “I thought you lost track of what you wanted to do when you went right through that last town.”

“No, of course not. That last little berg was Rock Port. I haven’t lost sight of what I have wanted to do since I met you. I never will.”

“Okay I’ll marry you then,” she laughed easily now. “I guess I already told you that, didn’t I? Where do we get this license to free us from sin?”

“It’s right up here, but shouldn’t we go into Miller’s Jewelry to find a ring.”

“Oh, that would be nice, yes, sure.”

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So how does one discuss the wedding of two people who have previously agreed to share their lives and only perform the act as a gesture of good faith to society... or themselves... or what they consider to be god or goodness or honesty? There was exhilaration associated with the additional commitment to be sure as ripples of happiness – that word again – expanded around them, but any description could but bore those who know what is involved. Most everyone knows, or thinks they do, or should, and no one describes it adequately in writing.

At any rate, that day finished without further talk of leptons.



## 16 MOVING ON SMARTLY

Despite happiness, a certain sense of ennui set in upon Roger. He had always doubted whether happiness could ever be an end in itself and whether biological comfort had any meaning aside from its own justification. He had never formulated the idea, but he had had inclinations toward it even as a child growing up surrounded by what would seem to have been happiness. Awaken in the middle of the night by some meaning-of-life apprehension – certainly not a panic attack, a feeling he had only heard about but acknowledged having never felt – his thoughts wandered off onto aspects of his life other than his physical awareness of the warm wonderful body lying there beside him breathing rhythmically, Maria’s version of snoring.

An association with ‘lepton wars’ occurred to him and thus to their having discussed a more logical explanation of why fermions were so exclusive. Why shouldn’t down quarks with the same spin be able to share the same energy level. Pauli’s exclusion principle, that certainly accounted for the shell structure of electrons in atoms, seemed to him to be held more as a rule than as a demonstrated consequence of what else is known of quarks. Acquiescence without remonstrance to simplistic analogies and explanations of behavior of other particles seemed all wrong to Roger no matter what Julie happened to believe on the matter. Why had he given in so easily to Julie’s dismissal of his objections? What was *her* explanation? She had never presented what could be considered a cause. It was just what had been accepted by the ‘community’ about electrons.

As he recalled the very few days of discussion with Julie he realized now that most of the issues he had raised in their supposed assault on gravitation had more to do with particle physics than gravitation or electrostatics. Julie had just wanted to get on with an effort to redefine the basis of gravitation, not particle physics. It had irritated her that he had insisted upon discussing a quark basis of the

charge distribution that he thought would ultimately be the foundation for a new theory of gravity. Maria was the one whose primary interest had been the standard model of particle physics, whose background provided full knowledge of fermions, the group of particles to which quarks as well as electrons had been assigned. It is after all fermions for which the Pauli exclusion principle applies. The lepton aspect of electrons was the issue. It was she, Maria, with whom the truce in the ‘lepton war’ had figuratively been signed. A renewal of the conflict was inevitable.

He wondered to himself now about what could be responsible for the well-known non-associative behavior of fermions. Certainly ‘spin’ was involved, so it seemed to come down to how a spinning distribution of electrical charge differs from a stationary one. Spin itself produces a difference in the electric field of a spherically symmetric charge distribution to account for observed behavior of fermions? Magnetism probably, he guessed. He had considered only electrostatic effects so far; would he need to consider incorporating dynamics – magnetism, or maybe chromodynamics, the ‘strong’ force.

Maria squirmed beside him. “Oh,” he thought apologetically, “we” will have to consider the incorporation of chromodynamics. She knows a lot more about this than I do. He couldn’t consider this endeavor as exclusively his own any longer. There were two of them now, a red and a blue. What was Julie? The green? Certainly he must discuss this with Maria; they were a unit now – not at ‘war’ in any sense. Indivisible? And Julie? He couldn’t get a clear picture of that – RGB, all three of them. He lay silent without thoughts for a bit.

Of course Julie was in the picture. They must get her involved again; she had argued that the Pauli exclusion principle presented an unavoidable roadblock to his notion of a three-down-quark electron. She had wanted him to abandon that intuition and just get on with the direct merger of electrostatics and gravitation. He needed to know the way in which she held to the notion of three downs being incapable of union even if they happen to be tri-colored, and therefore each in a unique state, before he could let that concept go.

“You’re not sleeping.” It was Maria.

“No.”

“Why?”

“Leptons,” he answered.

“Oh God! Does that mean the honeymoon is over?”

“It doesn’t have to, does it? Didn’t our relationship start out with that topic at the heart of it?”

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“It did but I thought we agreed on a truce. I enjoy those conversations, but I was obviously not in the one that was going on up in your head just now.”

“You were actually; I apologized to you for proceeding without you, even if it was just in the audience of the assembled neurons in the upper house. You know, I started down this path of looking in on physics after retirement because of a notion my dad planted in my brain concerning gravitation. I still cling to that as a primary goal of whatever we come up with. But in the meantime, I became so obsessed, I guess you might call it, with a girl called Maria and the substructure of matter about which she was, and I quote, the ‘resident expert’ that I am more interested in straightening that out first and holding gravitation in abeyance.”

“So you’re levitating till we fix you a platform to stand on, is that it? This Maria chick must be one hell of a broad.” She laughed quietly. “It bothered Julie that you got hung up on the substructure of matter rather than gravitation per se, didn’t it? Of course I agree that we must get the substructure sturdy before we build on it. I always felt that your intuition with regard to the electron having a substructure might end up being the preferred alternative to conventional wisdom. I can see the merit. I like the three-color thing you have going on up there in the upper house right now too. It’s really intriguing.”

“You never told me we were in agreement on that.”

“No.” She laughed and appended, “we weren’t married so it was tentative.”

“What does being married have to do with anything.”

“I was teasing,” she said.

“Oh,” was all he could think of as a response to that. “You are in fact one hell of a broad by the way.”

“So how are we going to proceed?” she asked. “Where shall we start?”

“Let’s pretend there is no exclusion principle.”

“Pretend? Like John Lennon?”

“Yeah. Let’s see if we run into a *reductio ad absurdum*.”

“A what?” She laughed at him.

“You heard me, a logical absurdity, a roadblock we can’t hurdle. I thought you would know Latin. We suspend belief in all we are supposed to know about that principle and proceed to see if alternative conjectures work as well or better and then figure out why they don’t *if* they don’t.”

“Why it doesn’t if it doesn’t? And accept it if it does? Is that how you do science?”

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“Yeah. Conjecture and refutation.”

“Hmmm. Karl Popper. Okay, I’m game. If there were no exclusion principle, we could indeed juxtapose three down quarks, and conceivably any other number, which doesn’t particularly bother me if you’ve come up with a way to make just three of them ‘stick’ without a gluon. Isn’t that the tricky part? Your three-color mutual attraction rationalization might circumvent the exclusion principle because in that case the state of each quark being a different color than that of the other two just might satisfy Pauli after all. That’s pretty much the accepted rationale for the substructure of protons and neutrons except that you insist that it takes two of the triplets to tango for neutrons. Isn’t that right? And I have no particular problem with that, but how would you get four down quarks into that close proximity in the neutron what with the repulsion of their like charges and the duplication of a color? That’s the hurdle I can’t get over. Maybe that’s the complication that has Julie hesitating.”

“It seems to me that neutrons are the manufacturers of electrons and protons. That’s what I think – it definitely involves manufacturing electrons rather than just having them just spontaneously popping into existence. There has to be a logical sequence of events that does it.” He jumped up and ran in to get his laptop that had been on the drawing table in the office and then came running back to bounce onto the bed. He scrolled through his ‘neutron’ file to a diagram that illustrated his point. “This is how I envision an up quark and a down quark attracting each other and adhering.”

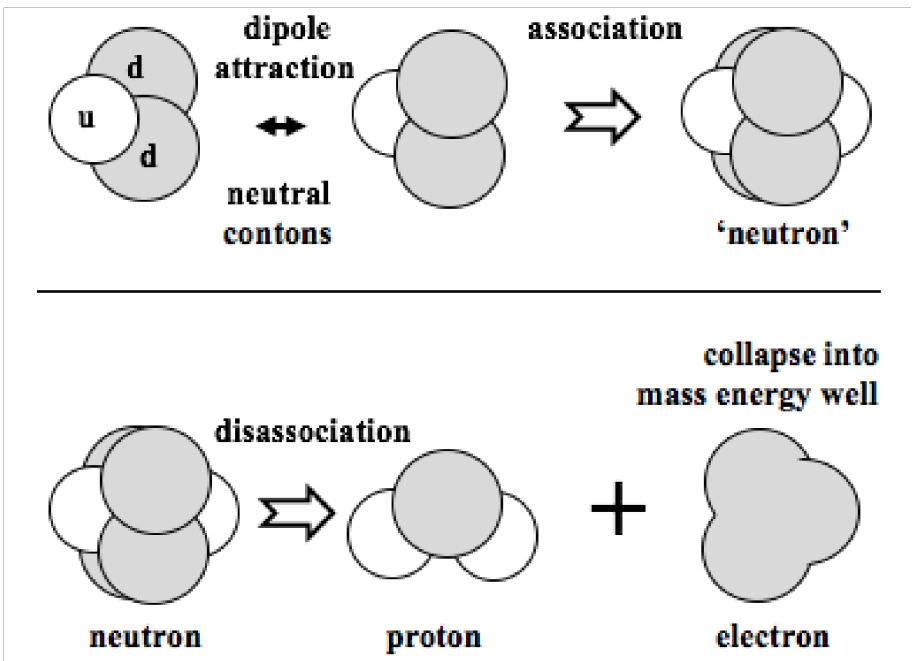
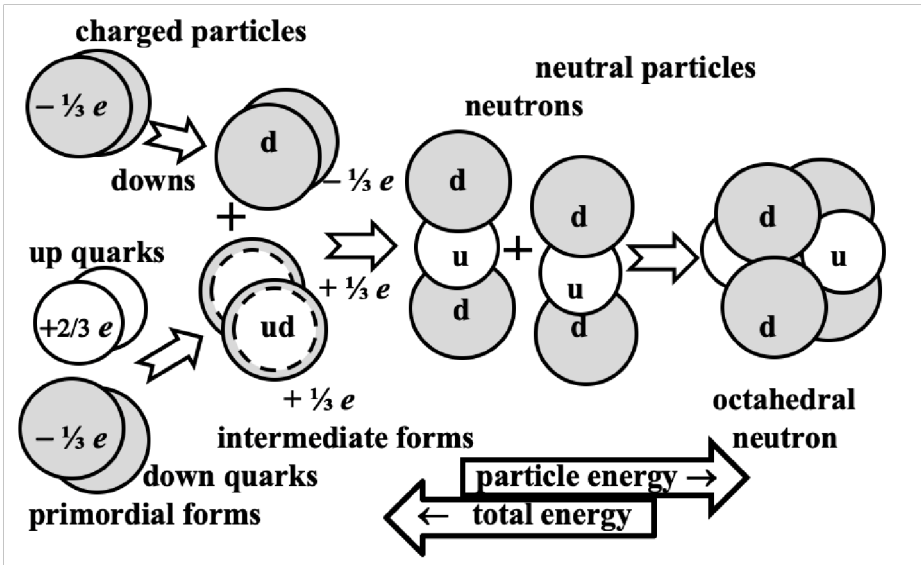
“Adhering? So we have had an up-down, ‘u-d’ dyadic particle with one third of a positive electronic charge at an earlier point in this process. That would then attract another down quark, to produce a ‘d-u-d’ (dud) which is a quasi-stable half of what you envision as being your octahedral neutron, right?”

“Yeah. That’s the way I see it. “Dud” is the right terminology for the traditional neutron structure. I would think one could legitimately say that at each stage particles adhere like Legos popping into place next to each other.”

“Okay, but that step creates a ‘dud’ that is a traditional neutron structure, not your octahedral neutron. So why is that not the neutron itself, with neutron decay involving their collision?”

“Yeah, that’s maybe a better way of looking at it. Two duds slam into each other wrapping all four down quarks around their two up quarks which lowers the total energy momentarily, but it is unstable because of the color situation with the down quarks. ‘Adherence’ is a little less direct and more unstable, if you will, into the octahedral

neutron. Energy is reduced at every step in the sequence, but color considerations preclude a lasting stability, so they careen on to produce the proton and electron by a larger reduction of energy. It's all downhill."



"The conventional neutrons just sidle up to each other, huh? Just sort of sneak up on each other and spoon?" She scooted over next to

him. “Like this?” she laughed. “And then... wait for it... Boom! Then the legos really go to work in an orgy of reconnections.”

“Yeah.” He frowned at her emoting. “It’s just sort of like spooning and reconnection, I guess. Maybe like two neutral water molecules sidling up to each other in ice crystals – the like charges in each molecule resituating themselves to accommodate a lower energy loose binding. But the energy difference in this case would make it more like slamming into each other I think... to go ‘boom’ as you say.”

“That’s how you envision it?” she responded. “A muted orgy. But it slams hard enough that three of the down quarks get hung up in a lego-like snapping into position.”

“Yeah, pretty much. In quantum theory electrons are, after all, just clouds of negative charge surrounding and buffering the positive charge and that’s pretty much what we would have here. There is decreasing energy at each step in this process. I see the octahedral phase of the neutron as highly unstable because it can now decay into a much lower energy state of a proton and a three down quark electron without any hocus pocus transmutation of a down quark into an up quark and all the rest of that accepted nonsense including the momentary wimp.”

“‘Pretty much’? Maybe the reason you disrespect the exclusion principle; it’s too cut and dried for you. Or is it the momentary wimp?” She laughed now.

“Yeah, ‘pretty much’. I don’t disrespect the exclusion principle or god for that matter; I just happen not to have as deep-rooted a belief in them as an answer to everything as most people do. And yes, it is too ‘cut and dried’; it’s a sort of deus ex machina. That rule merely says, ‘They can’t closely associate!’ rather than explaining ‘why’ they can’t possess the same state.”

“You seem to be advocating constructor theory, relying on the ‘possible’ winning out against the ‘impossible’. I don’t have a very deep-rooted faith in anything either. How could one and still call themselves a scientist... or fall in love with a guy like you? And god... well, I just don’t know. Roger, I was just teasing for god’s sake.” She hesitated for a moment before defiantly stating: “But I think I should tell you that I once acquiesced to there being a flaw in your derivation of the indivisible distribution.”

He jerked his face toward her. “You did?” Then after a moment, “And who might you have acquiesced to? Julie?”

“Yes,” she said sheepishly.

“How could she? We went over that specifically in her office. That’s why we called it the Poisson distribution. So why are you

playing along as though you accept all this stuff if you don't? You have to be honest with me always."

"I am and I will always be honest with you, and I do accept that the solution to the Poisson equation provides the correct distribution. I am convinced that the indivisible distribution is the correct underlying charge distribution just as Julie is. I also think it is probably associated with up and down quarks – and the electron, one way or another. Julie suggested that it must probably be accepted as just another fact about the universe rather than as based upon some irrefutable mathematical proof."

Roger continued to stare at her, shocked, thinking deeply about what she had just said. Then finally, "Is that what Julie believes – about there not being, and not needing, a proof?"

"Yes. I think so."

"You two looked that over together – and rejected it without my input? She and I went over that together specifically and verified the proof. I'm sure we did."

"You wouldn't have been interested in what we were doing at the time we discussed it, and like she told me, you two just had a couple of days together after Edward's funeral and only a very few hours each day even then."

"Oh yeah." He stared off, thinking to himself for a spell about flashing red and blue lights and sirens... and the long hiatus between being and nonbeing before finally 'becoming' once again. "Time doesn't stop for everyone at the same time, does it?"

"It did for you and me," she responded thoughtfully, adding after a pause, "it did stop for me too. You do know that don't you?"

"Yeah, but we got it going again, didn't we?"

"Lisa got it going again for all of us."

"Did she?" He paused to think about that. "Yeah, I guess she did, didn't she. But for you too?"

"Yeah. Can I just use your patented fucking word again? You didn't imagine that I would have been devastated after virtually seducing you the very night before that awful day?"

"You didn't seduce me. I went over to campus specifically to find the person I had fallen head over heels in love with the day before. I was so despondent on account of Ellie's phone call that I had to be with you."

"I knew that would contribute to feelings of guilt for you. But I was at the bottom of that same abyss, Roger. After I called in sick day after day with my TA and Julie having to stand in for me, Julie came to see me. She made me get up and dress and eat something – several

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days in a row she did that. She saved my life, I think. She worried about my not getting over the guilt of what had happened between us the night before Ellie died. I told her everything. She was great. We became friends and she tried to bring me up to speed on what you and she had been working on to make me a part of something, but I wasn't very attentive. I was too depressed, so I can't adequately represent her position on things. After a while of not getting over myself she virtually forced me to go over to Lisa's with her and Lisa drug me out of the rabbit hole with her cheery version of kindness. She didn't hold the Edward thing against me.

I don't know whether I had been suicidal before that exactly, but I had been extremely despondent. Julie had been really worried about me I guess; the world had become so dark. Once over at Lisa's, all three of us talked into the wee hours about you and us, the Bonns, and everything else. I even laughed for the first time in a very long while. We all became really close.

"Lisa told us about your conversations when you were there after Edwards funeral. She told me about that phone call with Ellie and how devastated you were. She told us about what she referred to as your 'bad behavior confession' about having spent the night making love with me and coming back in the early morning hours with Lisa worried. She assured me about how much you loved me and that you really had fallen for me the day before that – that your love for me was not a reaction to Ellie's rejection or what she referred to as a 'man thing'." Maria laughed as she recounted this. "Both she and Julie assured me that since I loved you so much and you loved me, that I was the one who would have to help you get out from under that shadow, that I must come up here with Lisa to rescue both you and me from under that cloud... that rock. That's what Lisa and Julie decided, and I was all in. It seemed like life or death."

They both just looked at each other for a considerable spell.

"I should have thought about how it would have affected you; I did think about you a lot, but it was always the Maria I had fallen in love with, not the one who I should have known would be under the same dark cloud I was, going through her version of the very same hell I was going through. It occurs to me now for the first time. Isn't that awful? I'm sorry."

It was Maria who broke away from the sadness and the ensuing silence. "Okay, let's get up and have some breakfast and then you sit down and show me the derivation. Let's get this thing kicked off right."



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“Yeah, I’ll do that and then I’m going to explain to you why I don’t think there is anything essential (like an invariance or a law of physics) about the universe for which there is no logical explanation or mathematical proof, that the universe is a tautology. I see it as the ‘I think therefore I am’ of the universe.”

“That’s the kind of world I want to live in – one that makes sense. I am eager to hear this explanation that rejects incomprehensibility and irrationality. But it sounds like constructor theory to me.” She laughed happily now.

“Lisa and I had a discussion after Eddie’s funeral; she probably told you. It was about there being things that happen that are so complicated by multiple causes that they are not amenable to analysis, but the underlying invariances all have a meaning that derives from their being necessary. Nothing at all would happen otherwise. It’s a matter of logic.”

“Yeah, I know; she told us about that discussion, but she didn’t understand it well enough to convince us. What’s for breakfast?”

“I’m used to the breakfast of champions.”

“Then I’m a champion too.” Then after getting the two bowls and a couple of spoons, “I probably should have told you about my depression and all those discussions before, but we were too busy being happy.”

“I should have known without being told.” He finished setting up the coffee pot and turning it on.

“Anyway, about Julie and my conclusion, I know you’re probably right and Julie just forgot the details of the proof. You have a way of pulling rabbits out of hats like knocking balls out of ballparks, so I’m not into betting against you.” Then, “I find it extremely interesting that you don’t accept a universe that is not a logical tautology; it’s something about you,” she emphasized the “*you*”... then thought a moment, “and your dad too as I understand it from Julie. I wonder if it’s offensive from your perspective that it might be part of your DNA?”

“Yeah. It is... offensive.”

“So, what I’m saying is that I think you are right on this issue, but you should know that just because we’re married and I love you, you can trust that I am *not* going to accept any argument that doesn’t seem completely justified. You can still trust me.”

“Yeah, good. I wouldn’t want you to accept anything otherwise. Sorry for being condescending; facts are just facts, but in as much as they are considered consequences of physical laws, they require logical explanations. Anyway, I prefer royal opposition. Wheaties?”

“Yes.”

He poured cereal into both bowls. “Have you read Voltaire’s ‘Candide’?”

“Yes,” she poured the milk. “I think I did. El Dorado, right?”

“Yeah, that’s it. But what I liked in the book was his lampooning of Professor Pangloss and the idea that we live in the best of all possible worlds. Even though Voltaire is totally ridiculing the idea I accept it wholeheartedly.”

“Roger! Are you losing it? What has happened is awful! Awful. You’ve had a front row seat to how awful this world can be and it was not necessary in any logical sense.”

“I know.”

“Then how can you accept this as the best of all possible worlds?”

“Because it’s the ‘only’ possible world and therefore the ‘best’. In Roger Penrose’s book ‘Emperor’s New Mind’ he provides an image of a creator god determining which universe he will create. Of all the alternatives in phase space, he/she – although he did depict him/her with a beard – is constrained to only one in ten-to-the-ten-to-the-one-hundred-twenty-three possibilities. That is ‘pretty much the only’ possibility and I’m willing to go the rest of the way. For example, the up quark is constrained to have twice the charge of the down quark; it can be no other way; it has to be two point zero, zero, zero,... an infinite number of zeros. I can’t prove that but I am convinced of it. There are no universes where the speed of light, Planck’s constant, the gravitational constant, etc. have different values because there would be no universe at all in those cases – that’s what I believe in my atheistic way. The god I could believe in has no flexibility whatsoever. It’s blind acquiescence I guess.”

She laughed and asked, “Yeah, but what about here on planet earth?”

“Well, for starters life happened and then survival of the fittest happened, and then humans happened, and all hell broke loose.” He gave a little chuckle. “What else can I say? But the so-called ‘laws of nature’ are not happenings; they’re like the computer manual that describes how the computer does what it is programmed to do. It doesn’t warranty the programs that execute on the computer as being valid. It just explains how the computer works.”

“So,” she summarized, “some very illogical events occur even though the physics behind them is completely logical.”

“Yeah, bad programmers. I guess that’s what I’m saying. It’s also why I like physics – getting down to a level that makes sense.”

“Me too,” was how that aspect of their conversation ended.

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They were still ruminating when Roger proffered, “Julie did tell you that we had come to reject the traditional form of the electrostatic potential didn’t she?”

“I thought you accepted the basic formulas for potential and field strength.” She paused. “No, I remember now – just the force field strength.”

“Yeah. One has to accept the traditional formulation of the field strength; it’s experimental fact.”

“I’m sure Julie implied that she doubted whether that distribution could be derived from first principles.”

“Field strength can be measured, potential can’t.”

“You don’t accept potential energy as a real thing because only its consequence is real? It’s a major part of the conservation of energy which you rely on for everything. So how do you replace it? I’ll bet that’s what changes the derivation that Julie and I took exception to, doesn’t it? But how could one justify that or prove it?”

“I think that’s the issue. The alternative formulation involves the potential energy taking a somewhat similar form in as much as it retains a gradient that becomes the field strength vector.”

“When did you come up with an alternative potential? And why? And what is it?”

“I had stumbled upon the approach just before Eddie’s funeral and I wasn’t too sure about it, but I did discuss it with Julie, and I’m sure she confirmed it. She had already obtained the same form for the potential as I recall.”

“Okay, so what is it?”

“The proof or the expression for the potential?”

“Roger, both. Just spill the beans, would you? I have to get up to speed on this in my lifetime if we’re going to be a team.”

“I don’t want to be talking down to you because I know you have a more solid background than I do in this stuff, but I’m just going to spell it out in detail because evidently, I failed to convince Julie before. So bear with me. The Poisson equation – and evidently Julie is fine with calling the distribution the Poisson distribution – is just an inhomogeneous second order differential equation backed up by Maxwell’s equations, Stoke’s theorem, and a bunch of other details of classical field theory.”

“Sorry to stop you right here, but you should know that there is in fact (and I quote) “a Poisson distribution” that is not the distribution you and Julie stumbled upon. Poisson’s extension of Bernoulli’s binomial distribution of heads and tails that your father should have cited in that notorious interview on the day of his retirement. It has

already been given that name. We have to come up with a different name for what you're talking about: How about referring to it as the 'indivisible particle distribution'?"

"Yeah, okay, maybe. I think our distribution is much more deserving of that name, but it's just a name, so okay. Anyway, as I was saying, it formalizes the results of experiments that confirm (or at least have failed to refute) that the force is proportional to the charge and has an inverse square relationship to distance. I know this is an embarrassingly trivial and condescending explanation, but there is subtlety that justifies correcting centuries of misinformation."

He could tell that Maria was having a hard time not laughing at him, but he continued, "For a symmetric charge distribution, according to Gauss's law, only the amount of charge circumscribed by the sphere whose radius is equal to the distance from the center where the force is being measured is included in the force equation. It allows the pretense that all the charge is located at a single point at the center."

"Yes. I do know all that, Roger." She continued laughing.

"Yeah, I know you do, but let me continue because this is how I explain my thoughts to myself one little step at a time whether they are too tiny for you or not."

"I'm sorry. I know it's worth the care you give it and I do enjoy your soliloquy." She smiled more gently now. "Please proceed."

"Yeah, okay. For a point charge, that central point includes all the charge there is, but if we disallow point charges, then a non-trivial symmetric distribution that exists throughout all space must be expressed as a function of the distance from the center. And... since the force field must be pointing outward in this case, it is 'conservative' (in the scientific sense) and therefore it can be represented as the gradient of a scalar function. That some such scalar function exists is all we know and all we need to know about the potential. Everything else we presume to know about potential derives from something else. It is reified in no other way. Its gradient is the only aspect of the potential that has any validated role in the scheme."

"God damn it, Roger! I took freshman physics too; I got an A plus by the way." She was clearly exasperated. "How do you, quote, 'reify it' as being anything other than the traditional  $q$  over  $r$ ? That's all I want to know."

"Well," he laughed at her anger, "we have to back up."

"I feel like we're going backward faster than we're going forward."

"Bear with me. Poisson's equation is more than just an isolated second order differential equation. It is part and parcel of an

associated boundary value problem. Right? Its solutions must pertain within, and be ‘realistic’ at, the boundaries.”

“So?”

“So what are they. What does Maria Nee Parino accept as the legitimate boundaries?”

“Duh! For a sphere it’s the surface at an infinite distance.” She was irritated. “But for me personally, there are none and I don’t like having them imposed.”

“Yeah, sorry,” was his token acknowledgement of her angst. “But ‘they’, because there’re more than one of them, must be at infinity and at the origin.”

“You’re trying to get rid of the singularity by saying there isn’t one? I guess the pertinent question then would be, can it be solved with the additional constraint?”

“I’m not just *saying* there isn’t a singularity; I’m modeling the problem to acknowledge the reality that there *can’t* be one; the value must be physically realistic even at the origin. That acknowledgement is what has been missing. Correct modeling (theorizing if you will) in physics establishes isomorphisms between the mathematics and physical reality. This constraint just requires a legitimate solution to the Poisson equation without a singularity at the origin. And... guess what? There is indeed such a solution, and furthermore, it is unique as proven by the uniqueness theorem.”

“Really. Okay, what is it – the potential I mean, what is an expression for the potential that solves that boundary problem by giving the correct gradient?”

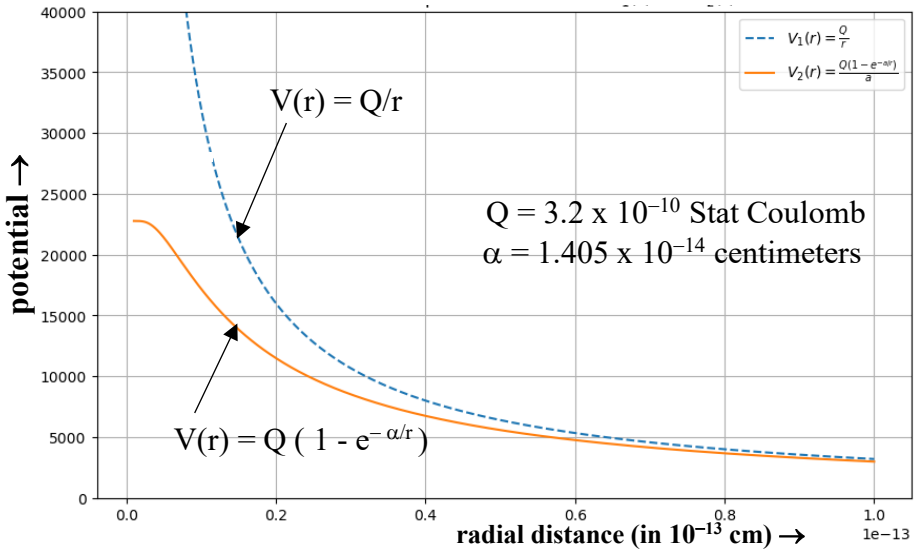
“Well, now when we solve for the charge density distribution, we get the inverted exponential distribution we’re familiar with (and who cares what it’s called). The scalar whose gradient is the field strength of the force, is (wait for it)...” He opened a notebook to a page with plots which included the expression for the alternative potential.”

$$V(r) = q_0 ( 1 - e^{-\alpha/r} ) / \alpha$$

“Really, with no direct inverse proportionality to distance.”

“Nope,” Roger thumbed through his notebook. “But for all practical purposes it is in fact the functionality one expects. Take a look at this diagram.”

“I see; the inverse exponential reverts to a direct inverse proportionality in the limit.” She closed the notebook to look at the front cover; “Where have you been hiding this.”



**Linear scale comparison of traditional and alternative potential**

“In plain sight on the desk,” he laughed. “We’re just getting started again you know. I used to print stuff out and put it into this notebook. I don’t know why.”

“I need to browse through this notebook. Julie told me what you had said about your investigations while you were playing baseball. Those conversations were therapy for me, I think, not scientific discussions. She insists I was suicidal; I don’t think I was, but damned depressed. So we didn’t really get into much depth. I want to dive into it now.”

“Yeah, let’s.”

“You figured that out all on your own then, didn’t you? That the origin has to be a part of the boundary – before talking with Julie.”

“Yeah, I guess. Not being able to find a legitimate derivation of that distribution had bothered me for a long time as it had Julie but then one day, I was just thinking about how to get rid of that singularity.” He paused. “It just came to me that the added boundary condition was how to fix it – how it should have been fixed long before. It shouldn’t have needed a fix. But without having it confirmed by someone else I wasn’t confident. I’ve never been able to express my idea in a way that is so convincing before this morning. I just told Julie it was an intuition of mine. I think that’s what I told her and that’s probably why she thinks it doesn’t have a proof.”

“We better call Julie and let her know she needs to do a switcheroo.”

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“And my acceptance of a three-down-quark electron that Julie told me a long time ago that she doesn’t abide because of symmetries and the exclusion principle? Can we tell her we’re going with that too?”

“Not before you and I have the discussion and you convince me that an odd number of quasi-snark insanities vanish in becoming an electron. You need to speak with confidence; I don’t think you can do that without my concurrence.” She laughed congenially.

“Yeah, well,” he paused. “I don’t think it will vanish like a boojum,” he laughed in deference to their references to Lewis Carroll having originated the term ‘quark’. “The three downs are still in there in some sense; I think they might pop out if there were ever to be enough thermodynamic pressure. It’s like atoms in tightly bound molecules.”

“But these are not facts – it’s currently just part of your personal intuition – your colorful imagination and Carrollian logic. We need to reify the concept.” She laughed at her use of his words.

“It will be a fact – as soon as I can explain it such that you accept what’s good about it and modify the rest. Then it will be gospel because then it will have the legitimacy of causal explanation.” He laughed uncomfortably.

“Okay, let’s do this,” she said. “Down the rabbit hole we go. Convince me.”

And the conversation drifted and went in directions they had not planned but by the end of the day they were both synchronized on an approach to discuss with Julie, but still avoiding the prospect of discussing the three-down-quark electron.





## 17 THE INTERVIEW

It was way past noon before it seemed as though food might rank up there with physics on their pyramid of needs and desires. But finally they headed for the kitchen to fix a snack. While sitting there ruminating on food and physics, Maria's phone notified her of a text from Margie. All it said was, "Call me." So she put her phone on speaker and shortly Margie's voice filled the room.

"When's this honeymoon happening? Tommy and I are all set. He's telling the world tonight on the Giant's News Outlet. They upped his contract – as if we needed that – and so we're okay with that and the contractors are just about finished with remodeling the house. It looks great by the way. So we can be gone for a while. How about you two love birds? Have you got Julie's favorite program back on wheels yet?"

"We're good to go," Maria responded. "Aren't we, Roger?"

"I'm good. Just take me where they speak my language and have electricity and running water. Oh, and they better have access to the internet."

"I'd like to go skiing," Maria bounded back into the conversation.

"That sounds great to me, how about you Tommy?"

Tommy's voice was heard for the first time. "I don't know; the Giants might frown on it."

"Tommy, you're a good skier and they don't own your soul. They haven't written a clause to that effect into your contract."

"I suppose it would be alright. I used to enjoy it when we'd all go up to Baker."

"Yeah, that was fun, wasn't it?"

"It was a blast," Margie interjected. "You any good at it, Maria?"

"I'll hold my own."

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“Back on topic here,” Roger wrestled the conversation back to Tommy’s interview. “What’re you telling them? Why it’s okay for you and what’s her name to get married?”

“Yes,” Tommy bounded in angrily. “It’s Margie – did you forget?” Then, “I gave them the facts as we all know them.”

“The ‘facts’ that we admit to you mean.”

“Do you know all those secrets Maria?” Margie asked.

“I do. In fact, I know the truth that supersedes the misleading facts. Roger insisted that I should know all the secrets before accepting his proposal. And, as if you didn’t know, I think you two are a grand unit – and so does Roger – if you want the truth beneath the facts.”

“Yeah, but are you all ready for fireworks after Tommy tells all? You better be, ‘cause it’ll come,” Roger insisted.

“It’s fine Pop. You made the pattern for how to handle that shit.”

“I assume most of the questions in the interview deal with that, right? They’ll be more sensitive about Ellie’s – you mom’s – death.”

“Yes, but Bob understood what I told him about Margie and me; they get it. Everyone likes Margie.”

Maria was back, “We’re anxious to watch the interview. But back on the joint honeymoon, when are you guys wanting to do this and for how long?”

“Indeterminate,” Margie said.

“As in impossible to determine mathematically or any other way?” Roger asked sarcastically.

“No Bro, as in anything you two would like.”

“What time is Baseball Today Tommy?”

“Six.”

“Six? That’s almost here. How long is the interview?”

“A half hour or so I think. Maybe they’ll take out some of the details about you and mom and your dad and mom. I hope so, but I was respectful.”

“Yeah, well, they won’t take any of that out. The media loves that gossipy shit. But I knew you’d be respectful. Still...”

Maria stepped into the conversation again. “It sounds like we all want some skiing; the slopes will be open around here in a month or so or we could go somewhere where it’s cold sooner. So let’s think about it and get back after the interview.”

So they all signed off for a pause before the Baseball Today interview. Then Maria began discussing what she felt Roger needed to talk about. She knew he was apprehensive about all the sordid topics that Tommy must have had to discuss.

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They strolled down by the lake in the cool autumn air with leaves turning and only a small ripple across the surface of the water. They had a light snack before going into the family room to face the TV. Roger had obviously been nervous from his first awareness of the interview. Maria scooted over closer to him with a hand locked in his. When Bob Novac appeared on the screen, Maria undid the mute.

“Tonight we will be talking to a new star, Tommy Bonn. He has just signed a huge contract for the San Francisco Giants of the National League. He will pitch and be an obvious asset as a hitter. In the Giants failed attempt to proceed in the playoffs, Tommy’s play was outstanding in relief pitching and pinch hitting. He will be a major part of the team going forward.”

The field of view of the camera expanded to include Tommy sitting opposite the interviewer. “Is this the contract you had hoped for, Tommy?”

“Yes.”

“No more expansion on that topic?”

“What more can I say, I like it very much.”

“Okay. I imagine this move by the Giants is no more of a surprise to you than it is to anyone else. A son and grandson of Hall of Fame players had to know that the carpet would be rolled out if he produced the kinds of numbers that you have in your brief stay in the minor leagues. We often hear the ‘déjà vu all over again’ mantra that followed your grandfather, your father, and now you.”

“Yes. I understand that my grandfather didn’t like it; my father (who is not in Coopers Town by the way) didn’t like it; and I don’t like it either.”

“You have to admit,” Bob chuckled, “even that sounds like déjà vu all over again. And your father *will* be in the Hall of Fame as surely as we’re sitting here now.”

“Yeah, maybe.”

“Jesus, get on with the interview,” Roger interjected into the conversation to which Maria tightened her grip on his arm and hand.

“It isn’t as though you’ve had it easy; the tragic death of your mother had to have been devastating.”

“Yes.”

“Has your father been able to come to terms with it?”

“I think so. It was hard – on all of us. It’s not something one is ever prepared for. It’s just awful. But you move on.”

“Evidently your association with Margie has helped; she seems to have traveled with you since the disaster.”

“Yes. We are going to marry.”

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“Marry? How can that be; aren’t you too closely related to allow that to be an option?”

“No. We aren’t. It turns out that Margie was adopted by my grandparents, so she is not biologically related.”

“Oh, my goodness. And no one knew?”

“Well, my family has had so much scrutiny what with my parents’ and grandparents’ celebrity status that we have a longstanding habit of not disclosing what we consider to be nobody’s business.”

“That’s certainly understandable. But I assume the adoption papers are publicly available?”

“Yes. It’s a matter of public record if that’s what you mean.”

“Where would that have been filed?”

“Boston... I think.”

“Have you and Margie obtained the marriage license already?”

“Yes, we have and there were no problems. But I thought this interview would be about baseball.” He smiled.

“Oh, yes, it is, of course. But it is ‘you’ in particular who your fans would like to know more about. This is a very interesting aspect of Tommy Bonn that will not appear on any baseball card. Your parents ran into somewhat similar problems as I recall what with your mother seeming at first to be your father’s half-niece. Another instance of déjà vu all over again, like it or not.” Another chuckle from Bob.

“Yes. And of course this has all been litigated by the public before; my mother’s grandfather was ‘not’ Ray Bonn, which DNA analyses proved. Her grandmother had been date-raped by another man – who actually spent some time in the minors, and I suppose he should properly have spent some time in jail. My grandfather accepted my grandmother as his own child and treated her that way all the time while she was growing up, but she knew the truth even if the general public didn’t.”

Roger writhed uncomfortably and said, “God. He’s just winging it.” To which Maria motioned for him to be quiet so she could listen.

“Yes, I remember,” Bob stated. “And then your parents more or less raised Margie after your grandparents’ tragic deaths.”

“Yes, although my aunt Julie acted more directly as Margie’s mother.”

“Okay. I think we have that mulled around to where I can understand it as something not quite déjà vu all over again... but a bit strange, nonetheless. So when will you marry, where will you reside, will Margie continue to travel with you on the road? Do you see children in your future?” Then looking directly into the camera,

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Novac added, “We’ll see if we can get answers to these questions when we return.”

“Oh, God!” Roger attempted to stand but Maria pulled him back down.

“It’s okay, Roger. It’s really good to get this all out in the open don’t you think?”

Roger did not respond, continuing to stare at the muted TV commercials.

Until finally Bob and Tommy were back on screen.

“So... Tommy. When’s the happy day? Next June?”

“No. It’ll be sometime before spring training.”

“Children? Is that in the plan?”

“I think so – eventually at least.”

“So maybe another major league star and hall of famer – déjà vu all over again.”

Tommy just shook his head and rolled his eyes to laughter.

“And your father? Rumor has it that he is seeing a brilliant physics professor.

“God damn it!” Roger exclaimed with Maria gripping him tightly.

“They have married and are very happy,” Tommy responded to Novac’s probe.

“Good. If anyone deserves it; he does.”

Then after a pause Novac was back at it again: “I know this has been a bit personal Tommy, so let’s get into your career to find out a bit about your amazing rise from the minors to the ‘big’s’. You opted for the draft early and spent a minimal amount of time coming up through double and triple A minors teams, pitching shutouts and hitting long balls. It looks like you can do both of those things at every level including the majors against playoff opponents.

“We will all be watching you do what you do and hoping the very best for you and yours.”

“Thank you, Bob.” And that was it.

Maria switched the TV off and looked over at Roger. “It was good to get all that out of the way, don’t you think? I think Tommy handled it all masterfully.”

Before Roger could respond, the phone rang. It was Tommy and Margie.

After Maria’s hello, it was Tommy: “Well?”

“Yeah, well... you did good son.”

“Do you think so really? God, it was awful, but I thought I had to do it all.”

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“You did, and you ‘done’ well, kid.” Roger laughed easily now. “...even the lies.”

Maria was smiling broadly. “As the only one not specifically named in this affidavit, I think you all came out looking properly perfect.”

“He should have at least given you a name,” Margie responded.

“‘Brilliant physics professor’ is as good as it gets,” was Maria’s comment.

“I’m sorry,” Tommy said, “In our family we don’t like being named.”

“Yeah,” Roger said.

“Count the ‘brilliant professor’ in on that too; I will always settle for being the ‘unnamed conspirator’.”

“Okay, so we survived this,” Margie broke in authoritatively. “What are the honeymoon plans?”

“Roger, what do you think?” Maria asked deferentially.

“I don’t know, but it isn’t the time for skiing yet, if that’s what we want and I think we should maybe firm up some stuff with Julie on the gravitation front, don’t you?”

“Why don’t you come down here and check out our remodeling and stay while you are sorting out Julie’s issues with gravity and we can resolve where we want to go on the honeymoon and maybe Tommy and I can get married with a brides maid and groom while you’re here and I’ll plan a joint honeymoon.”

“Is this going to be a big thing?” Maria asked, “or just family.”

“Family,” Tommy said, “let’s just have us. I’m really tired of ‘the public’.”

Sure,” Maria responded, “but Lisa is family; she’d be hurt if she wasn’t included. She wasn’t too happy about Roger and I ‘sneaking off’ without her.”

“How about Julie? Could we invite her?” Roger asked. “I think she’d feel bad if we didn’t.”

Of course,” Margie spoke for them all.

So a tentative plan was set for the Roger Bonns to head south in a very few days in the future. “We’ll make our reservations and let you know.” That closed the phone conversation.

“Roger, what are you thinking with regard to Julie?”

“With regard to the wedding?”

“No, the research.”

“Oh, yeah, well... what we were talking about this morning applies specifically to the electrostatics and gravitation topics that

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interests Julie in particular. We need to discuss that with her don't you think? But there's more than that if we are going to merge the two."

"Yes. She told me once that all your detailed conversations with her pertained to your alternative vision of particle physics rather than gravity. It vexed her a bit. She thought that going forward you should direct those topics to me and gravitation to her."

"Yeah, and instead I've directed everything to you."

"As it should be now that we are one." She smiled happily. "But that derivation of the inverted exponential distribution is something she needs to see and question if she can. Those arguments about forces depending only on the gradient of potential and the density parameter values at a location rather than action-at-a-distance is definitely something she appreciates and needs to be made aware of."

"Yeah, and there's the problem she found with the distributions contributing to neutral composites having a residual positive sign which would tend to produce levitation rather than gravitation unless we separate gravitation out. That bothers me; didn't that bother you? It doesn't seem correct."

"It has and I spent some time trying to see what could be done about it. It will irritate Julie that she's been out of that loop for even a minute. If you think my reaction was over the top, wait till you witness hers," she laughed.

"You'd been thinking (well, actually doubting) that without telling me? Thinking on your own without involving me?" He formulated it humorously as justified by her having earlier accused him of private thought processes of which she had not been informed. "Does that seem fair?"

"Just echoes in the chamber, Roger. Just like you."

"Yeah. Well, I guess we need to coordinate if we're going to solve this gravitation problem and go two-on-one with Julie."

"It's late; we better wait until tomorrow."

"Yeah, okay."





## 18 SOLIDIFYING THE THEORY

It had been a fine morning up at the lake. After a relaxed breakfast and more commiseration to shore up their position on details of the application of the Poisson equation to gravitation and electrostatics, they decided they were ready to call Julie.

The introductory conversations were cheerful as among the close friends they had become. Preliminaries included an update on how the dean was performing and whether Julie had yet to regret not taking that job herself, how the ‘love birds’ were doing, would Julie attend Margie and Tommy’s upcoming wedding, and other I’m okay, you’re okay chatting with a finale of weather being fine at both ends of the conversation and that they would meet with her face-to-face in a mere day or so.

Then somewhat apprehensively Maria broached the ostensible subject of their call. “We need to discuss the status of our joint investigation so we’ll all be in synch when we meet,” she said. “Roger has convinced me that his derivation of the inverted exponential charge distribution is correct. The proof of its validity is based squarely on existing theory associated with the broader Poisson boundary value problem.”

“Oh yeah?” Julie said somewhat skeptically. “I thought we had concluded that it wasn’t.”

“I know we had, but I wasn’t yet up to speed or concentrating very well because of... well, you know... and I hadn’t heard all the arguments. We need to look at it again with Roger. The unusual nature of his conjecture for the potential seems necessary to me now

in as much as it results naturally from the solution of the Poisson equation when the correct boundary conditions are in place. I think that's what we were missing. Those boundary conditions needed to be revised to meet realistic expectations at the origin. That's what we didn't look at when we went over it earlier Julie." She smiled at Roger in acquiescence.

"Why do we have to alter boundary conditions that no one saw fit to alter for centuries?" Julie asked. "Isn't that just changing the question to fit the answer we want? It sounds a bit hocus pocus to me."

"No. Singularities are anathema," Roger interjected. "No one should have posited point particles and ignored the associated non-realistic nature of such a proposition. It's should always have been inappropriate to say, 'Well... they're very tiny'; maybe there isn't a complete singularity and leave it at that. Don't you think?"

"So you're eliminating a particular point in space in order to get rid of point particles. What does that buy us?"

"Yeah, I guess that's one way of looking at it; I wouldn't, but yeah. Getting rid of singularities is one hell of a purchase at any price don't you think."

"Once one accepts a realistic boundary condition at the origin," Maria chided in, "the conjectured potential as proportional to the total amount of symmetrical charge *beyond* the distance of a test location instead of the traditional total charge *within* that distance divided by the distance itself, is the result. It's like the inversion of Gauss's law, so, sure, it's very nonintuitive. But... the gradient of that gives us the inverted exponential instead of the direct inverse square without having to ignore another term that results when taking the gradient. It seems crazy, but both conjectures work virtually identically at a large enough remove. In the limit they are identical but this one applies everywhere. What's not to like?"

"As I recall, you did have a disagreement with Gauss, so that's it then. How does that 'prove' that the charge distribution of an indivisible particle must be of the form we agreed on with no proof?" Julie asked.

Roger responded, "According to the uniqueness theorem, there is ambiguity in the solutions if there is an incomplete set of boundary conditions. The boundary condition at infinity allows the conventional form but not uniquely. Completing the boundary conditions by including the origin – the center of the distribution – enforces that the potential expression you take exception to is, in fact, the only valid solution. The traditional one does not satisfy those

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completed boundary conditions. It was a solution to the homogeneous Laplace equation that assumed empty space between charged points. The Poisson equation is the more general (inhomogeneous) equation, but you know all that. I'm going to tell you this anyway since you doubted some of it. We know field strength is the gradient of the potential  $E(r) = \mathbf{grad}V(r)$  which results in the inverse square law  $q(r)/r^2$  deriving directly from the Laplace equation. We're going to share a file of this derivation. Did you get it shared, Maria?"

"Yes, it's shared, but why don't you just explain it so we're all in synch."

"Okay, let's address the gradient of the potential of a spherically symmetric charge distribution. We initially hypothesize that the potential is a function of both the radial functionality of the charge distribution  $q(r)$  as well as the radial distance  $r$  itself from the center of the distribution,  $V(q(r), r)$ , such that the gradient becomes:

$$\mathbf{grad}(V(q(r), r)) = \frac{\partial V(q(r), r)}{\partial q(r)} \cdot \frac{dq(r)}{dr} + \frac{\partial V(q(r), r)}{\partial r}$$

"However, experimental observations indicate that there is but one term, minus  $q(r)/r^2$ , and thus, one or the other of these terms must be zero. This means that one of the following options must be true. We addressed them in order just so you know that we do know what we're doing:

(1) With no explicit dependence of potential  $V$  on charge distribution  $q(r)$ :

$$\mathbf{grad}(V(r)) \rightarrow \partial V(r)/\partial r = - \text{constant} / r^2$$

This is implied by:  $V(r) = \text{constant} / r$

Option 1 violates the boundary condition at the origin, so it is invalid.

(2) With no explicit dependence of charge  $q = q_{\text{total}}$  on distance  $r$ :

$$\mathbf{grad}(V(q_{\text{total}}, r)) \rightarrow \partial V(q_{\text{total}}, r)/\partial r = - q_{\text{total}} / r^2$$

This is implied by:  $V(q_{\text{total}}, r) = q_{\text{total}} / r$  and  $dq_{\text{total}}/dr = 0$ .

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Option 2 violates the boundary condition at the origin, so it is also invalid.

(3) With no explicit dependence of the potential  $V$  on radial distance  $r$ :

$$\text{grad}(V(q(r))) \rightarrow [\partial V(q(r))/\partial q(r)] [dq(r)/dr] = -q(r)/r^2$$

We assume a solution to this differential equation is of the form:

$$V(q(r)) = C_0 + C_1 q(r)$$

from which, knowing that its gradient is  $-q(r)/r^2$ , we obtain a differential equation in  $q(r)$  for which there is a solution as follows:

$$C_1 dq(r)/dr = -q(r)/r^2 \text{ that becomes, } d(q(r) / q(r)) = dr / [C_1 r^2],$$

and

$$\ln q(r) = - (1/C_1) r + C_2$$

Finally, by raising both sides to the base of the natural logarithm  $e$  we obtain the charge distribution that we were looking for all along:

$$q(r) = q_{\text{total}} e^{-\alpha/r}$$

where we define the integration constants as follows:

$$q_{\text{total}} = e^{C_2}, \alpha = 1/C_1, \text{ and } C_0 = q_{\text{total}} / \alpha.$$

Option 3 does not violate the boundary condition at the origin or at infinity, so it is valid and by the uniqueness theorem, it is the only valid solution for the given boundary conditions.

“Both solutions (1) and (2) above and the earlier solution to the homogeneous Laplace equation violate the boundary condition requiring a finite value of  $V$  and all other constructs at the origin and therefore are not valid solutions to the Poisson equation. Thus, we are left no other options, we must accept option (3), and define integration constants that meet the boundary conditions. Thus, we acknowledge

that for the Poisson equation with these conditions the expression for potential must be:

$$V(r) = (q_{\text{total}} - q(r)) / \alpha$$

“here  $\alpha$  is a positive constant with units of distance and  $q_{\text{total}}$  is the total amount of charge included in the symmetric distribution out to an infinite distance. The field strength no longer possesses an illegitimate term; we have only.

$$E(r) = - \frac{1}{\alpha} \frac{\partial}{\partial r} q(r) = q(r) / r^2$$

**A major theoretical problem is resolved by there being only this one term.**

“This then is the proof that the conjecture is the correct solution. Period. The one that has been accepted for centuries must be rejected.”

“Oh,” Julie sighed jadedly; then after a lengthy silence. “I will have to spend some time with that. I follow what you two have said. We don’t need option 2; it’s just a rhetorical stretch from option 1.”

“Yeah, okay; the derivative of a constant being zero is hardly a stumbling block for many. Notice in the Poisson equation that the density is co-defined with potential at every point within, and on the boundary.” Roger continued speaking. “Together they produce the field strength vector – force, the only observable in this case. Potential isn’t an observable; it can only be proven by consistency. And since the charge distribution of any fundamental particle such as an electron is so tightly constrained by  $\alpha$ , no observable difference can ever be observed between our solution and the one that was previously accepted.”

“It isn’t an advantage to claim no distinction,” Julie submitted.

Maria scrolled to the plot of the alternative potential functions that they had discussed earlier between themselves for Julie to see.

Julie responded, “It’s ‘tiny’ but not a singularity. Is that it?”

Glancing at the figure while Julie did, Roger continued, “So, sure, the potential may just be a conjecture whether Charles-Agustin de Coulomb, Sir Isaac Newton, or we three musketeers make it centuries later. That’s all science is. I get that it’s just a conjecture, but this one is consistent with the theory and experiments with the associated field strength that determine whether such conjectures can be refuted or not. Both conjectures work to within experimental accuracy but ours has the benefit of a smoother shave by William of Occam’s centuries old razor. It avoids singularity problems at the origin and action-at-a-

distance problems at remote locations, and...” He hesitated as though trying to come up with further justification, but finally just added, “and that’s how science works.”

“You’re waxing eloquent, Roger like you’re presenting this at a conference.” Julie laughed. “I think Maria has been boosting your testosterone level. You two will have to teach the class on this when we’re done. ‘William of Occam’ though? C’mon? Drop that.”

It was obvious that she was still contemplating what they had presented, not rejecting it out of hand. “I know we discussed the self-energy of that distribution back... before you and Maria...”

“It’s okay, Julie. We’ve come to terms with what happened that produced the hiatus in our relationship and this effort,” Roger said coming to the rescue. “And yeah, we had already related the rest-mass to the self-energy of the electron:

$$m_e c^2 = e^2 / 2 \alpha_e$$

“with  $q_{\text{total}} = e$ , the electronic charge in that case. So the integration constant  $\alpha_e$  is defined in terms of rest-mass and everything is complete.”

“Yes. That’s what I was getting at. I still need to think about what you’re saying with regards to absolute proof. But what about avoiding the action-at-a-distance problem. Try to convince me of that, okay?”

“Yeah. Sorry for the testosterone-induced rant,” upon which Maria joined Julie in the laughter. “But I wanted to be heard and it was my intuition that was in doubt. So, okay you two, enough. Do you want my perspective on how this avoids the action-at-a-distance problem or not?”

“We’re giving him too much media coverage Maria, could you take over and explain away action-at-a-distance with less macho hype?”

“Sure.” She jumped in eagerly, “Both the potential and charge density apply at each and every location in space, right? We’ll send the image that portrays that.” She motioned for him to text the image. “Roger.” Then, “the potential is not an explicit function of radial distance so the field strength vector depends solely on constructs situated at-that-location” (she stated it as hyphenated) “like the force on a snowboarder going downhill has nothing to do with the height of the mountain or how far away it is from the peak. The force here has nothing to do with the unknown total amount of charge or the distance

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from the center of the distribution. The traditionally accepted expression for the potential wrongly suggests that it does.”

“Yeah, yeah, yeah,” Julie interrupted.

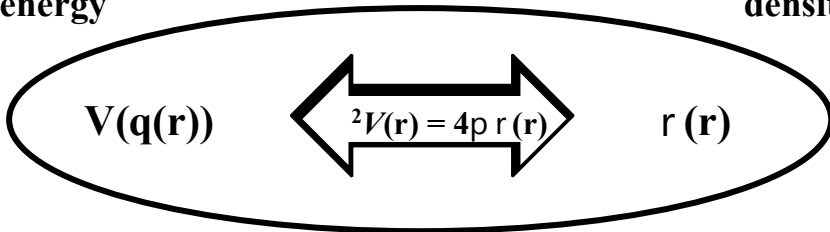
“...so the ‘added benefit’ of this conjecture is that now we can discard an offensive concept of action-at-a-distance like animism was cast off before. In fact these constructs *all* apply at, and pertain *only* to, the location specified by  $\mathbf{r}$  – not distance, mutually implying each other at that point. Roger, send the diagram.”

“Yeah, I did.”

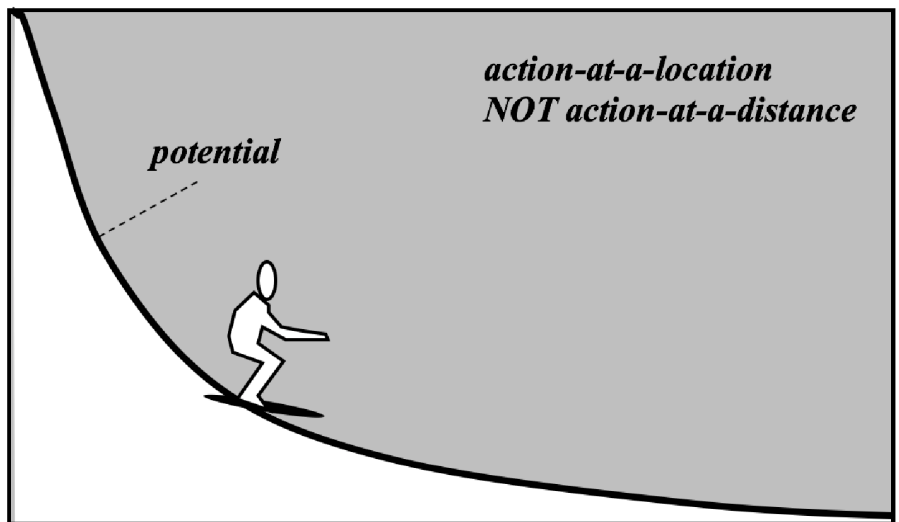
Julie interrupted again, “Did you guys just come up with all this presentation bullshit as a request for research money from the department? You better fix the functionality of the potential inside your arrow.”

**potential  
energy**

**charge  
density**



“Yeah; we’ll fix it. We just want all of us to be on the same page. I’ve seen it said that pedantry goes with clumsiness as symptoms of Asperger’s.” Roger said, “So I guess I worked alone for too long; what can I say? I’ll get over it. You both can keep me in check and don’t get pissed at me.”



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“Oh, I’m okay and you’re fine. A star athlete claiming clumsiness just to appease his women.” Julie said. “Are you kidding? Pedantry, sure, but it has a different source.” She seemed to laugh for his benefit at this point at least.

“How much of this presentation came to you since you’ve been together?”

“Nothing overtly intellectual happened between when Maria and I first made love way-back-when and when you sent her up here to rescue me. What went on in my brain during that awful void, I don’t know, but probably nothing. Just in the last couple of days have we finally got slogging through this and came up with what we’ve talked about now.”

“Well, I should have been in on it then. I shouldn’t be the one receiving a presentation; I should be a party to it.”

“Yes, we know that,” Maria said. “Sorry. That’s why we called, but I had to get up to speed with where you and Roger had been before. Some of all this happened when we were still in bed this morning, so we waited till we got dressed to get you involved.”

“Well then... you can keep that part to yourselves.”

“You know how thoughts work; they’re just like noise echoing through a chamber – at least Roger’s are; he told me. I wake up and can tell he’s thinking and then he gets me on board, and we progress a little further but we can’t call you because we aren’t even dressed yet.”

“You said that already; I understand, I think it’s marvelous for you both,” Julie stated cynically. “But could you just throw out a lifeline for me once in a while from that king size floating bed of yours that undulates so joyously in the brain waves so I can water ski back here a thousand miles away? Even wake me up in the middle of the night. I don’t care. You can keep the camera turned off if you need to – sure, do that – please.” She was laughing happily now after having expressed how frustrated she had become. “And thanks for not wanting to avoid my involvement altogether. I will catch up. I still want to be a part of this team.”

“We will try to keep in lock step with you. It’s what we both want,” Roger agreed. “You were where this all started, and you helped start it up again.”

“That’s for me too, Julie. And thanks for helping me get up here.”

Roger said, “Julie, I know we haven’t ever gotten to the gravitation part of our effort. Shouldn’t we look at that next? What I’m thinking is that maybe the same distribution of the rest mass of charged particles is appropriate. Shall we see where that gets us.”



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“Sure, but if it’s a separate distribution, how is that a merger and how would it be a (quote) ‘residue’ of the electrostatic force?”

“The rest mass being connected to the square of the charge addresses the original objective, I would think,” Maria contributed. “But also, wouldn’t this distribution be additive rather than separate if that’s how we wanted to handle that? Maybe there’s a gravitational charge that is additive to the electrostatic charge; we should look into all of these possibilities in parallel I would think?”

“‘Gravitational charge’? It would have to have a root of the universal gravitation constant associated with it to exhibit the same units as a charge,” Julie added. “I’m certainly okay with spending some time on that. It looks promising. Can we spend some time looking at that and get back in the morning. I do have some business to attend here.”

“Sure, I’ve been wondering when we would get into that aspect of which I’ve never been a part. Then maybe I’ll finally be fully integrated into the team,” Maria said. “We have to arrange our trip south and do some packing as well, so tomorrow sounds good to me. You too Roger?”

“Yeah.”

So they signed off with a little conversational comradery and disconnected.

“That went okay, don’t you think?” Roger asked.

“Yes, I thought it went really well. We do all work well together and I think she’s getting used to you being my property.” She kissed him. “I must have your testosterone level just about right. We probably don’t need to worry about that for a bit, but I’ll try to keep it adjusted along.” They both laughed heartily. “Okay, I think she bought into your proof of the distribution being the only valid solution of the Poisson equation. It seems like we are all synchronized at this point – except for lunch and the octahedral neutron maybe.”

“Yeah, there’s always that neutron we have to let fester for a while.”

Maria pointed at the image of the snow boarder. “Did you ever snowboard?” Maria asked.

“No. I skied a little as a kid and before getting into professional baseball.

They frown on injuries during the off season like Tommy said. Have you?”

“I skied in the alps a couple of winters. It was a lot of fun. I tried snowboarding some too, but I didn’t like it as well. I’ll enjoy skiing again; will you?”

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“Sure. The slopes will be open up at Baker before too long. You may not really like the winters up here; it’s pretty wet snow usually.” He paused and looked back at their drawing of the snow boarder. “Is this how thoughts originate in your chamber?”

Laughing, she admitted, “Of course, like reloading bullets. It crossed my mind that you must have some fond memories of snow just like I do. Why else the drawing?”

“I do like skiing.” He thought a moment, “Reloading bullets?”

“Oh God, Roger. I’m so sorry; I didn’t think.”

“That’s fine; we shouldn’t have to purge our conversation. Anyway, I got the intended humor; it was cute. What’s for lunch?”

“Just a sandwich would be fine for me; I’m not really all that hungry. I just wanted to get my claws into you before sharing with Julie. I’d like to be sure I’m on top of whatever you came up with on merging gravitation in with the electrostatics with Julie. I’m kind of excited about it but let’s arrange our flight south before we forget, and Margie begins to bug us.” She was already searching out the airline and proceeded texting in schedule data.

When she was done, Roger said, “I think you’re already up to speed. I liked the idea of the gravitational charge, defined as the root of the gravitational constant times the rest mass, as what distinguishes a second aspect of a generalized charge. I had originally thought there would be two separate distributions, but the determination of the variance of such a second distribution would be problematic. So by conjoining the root of G with the rest mass as constituting the gravitational charge distinct from mass-slash-energy and then adding it to the electrostatic charge, we can proceed directly to a merger of electrostatics and gravitation. Let’s do it.”

“Yes. So let me just calculate the extent of the difference to the distribution itself. The rest mass of an electron is equal to e-squared over two times alpha times c-squared; the dimension of this charge is,  $\alpha_e = e^2 / (2 m_e c^2)$ . That gets:

$$\alpha_e = (4.8 \times 10^{-10})^2 / (2 \times 9.109 \times 10^{-28} \times 8.988 \times 10^{20}) = 1.40708 \times 10^{-13} \text{ cm}$$

$$\alpha_{mc} = (-e + m_e \sqrt{G})^2 / (2 m_e c^2) = e^2 / (2 m_e c^2) - e \sqrt{G} / c^2 + G m_e / 2 c^2$$

$$= 1.40708 \times 10^{-13} - 6.6225 \times 10^{-44} + 3.3821 \times 10^{-56} \text{ cm}$$

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“So it adds (or rather subtracts) an immeasurable amount, less than ten-to-the-minus-thirtieth times as much to the width of the otherwise strictly electrostatic distribution.”

“Yeah, and significantly it apportions gravitational charge proportionately throughout the distribution so mass and charge are inextricably linked.”

At this point they both looked at each other and nodded.

“Then let’s eat lunch and work on comparisons of forces before we call Julie. I’m okay with one of those chicken pot pies, how about you?”

“Sure, put ‘em in the mic.”

From the kitchen Roger yelled back, “We can just add those force fields directly now, can’t we?”

“Why not, the units match. I think we’re there, Roger.”

He was back from the kitchen. “Yeah, it seems strange though to have the object of that gravitational force combined so directly. If two opposing charges cancel each other out, the associated gravitational charges do not cancel. Didn’t someone important worry about that?”

“I think we need some graphics to get a feel for what’s involved. I think it was Robert Dicke – who worried about it. Let’s check how symmetric proton and electron distributions would interact.”

“Isn’t that what Julie did before?”

“Yes, it is, but she didn’t add the gravitational charges. If you bring the pies in here when they’re ready, I’ll whip out a program to make some plots. I think we may need to plot this on a log scales though”

Roger brought the pies in when they were done cooking, napkins, forks, and two glasses of wine. “We can eat here then I guess.”

“Yes, it’s nice.”

“Lisa said Eddie never liked a sit-down meal in the dining room. It was a disappointment for Lisa.”

Maria kept working on programs. “I don’t like thinking about Edward in any context, but since you bring it up, I do recall that he and I never ate at my table, always at the bar in my kitchen. I hate all memories of Edward, Roger.”

“Yeah, sorry.”

“I think I have this ready to plot. Here goes.”

“Great! We did it, we have shown that electrostatics and gravitation can be handled as essentially one and the same thing.”

“They worked away on into the evening before deciding to relax watching a video and then went off to bed.



## 19 EXPLORING IMPLICATIONS

“Hi guys.” Julie was all cheer. “Thanks for calling. I was just about to call you guys this time. I’ve had a chance to look over your proof of the distribution Roger. I like it; it is valid. So our effort appears to be legitimate and is looking great. I’m checking on the relative force between two electrons to see at what distance the gravitational attraction matches the electrostatic repulsion.

“Did you two look at the determination of the variance of the gravitational distribution?”

Roger replied, “Yeah. We just added the two unique types of charge directly and noted that the gravitational charge contributes virtually nothing to the electrostatic variance – less than ten-to-the-minus-thirtieth. Maria plotted up what it looks like. We shared it.”

“Oh, I see. Hmm. I suppose that might be the right approach, but I looked at keeping the distributions separate. I know the problem with this approach is determining the variance of the new distribution when the rest-mass-slash-energy equivalence is no longer available. I decided a reasonable approach to combining the properties of the charge and mass of an indivisible particle would be to assume that the total potential energy at the origin (the center of what are both presumed to be the same distribution types) is zero, like so:

$$\begin{aligned} V_{\text{total}}(0) &= V_c(0) + V_m(0) = 0 \\ &= q / \alpha_c - m \sqrt{G} / \alpha_m \end{aligned}$$

“In which case the variance parameter of the gravitational mass distribution becomes:

$$\alpha_m = \sqrt{G} m \alpha_c / q$$

or

$$\alpha_m = \sqrt{G} q / 2 c^2$$

“Thus, there are two alternative expressions, depending on whether we choose to substitute into the formula the rest mass value determined by the electrostatic self-energy formula or just use the electric charge potential. They are equal because the following relationship results from zero potential at the origin:

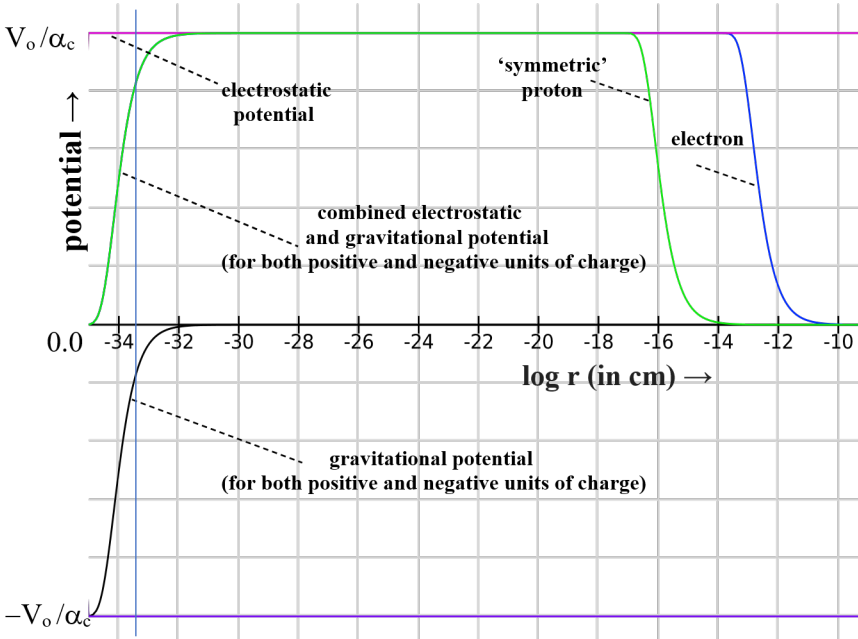
$$V_o = q / \alpha_c = \sqrt{G} m / \alpha_m$$

“What do you think? Does that make sense to you two? Look at this plot I made of potential.”

“Using the first of those expressions (assuming a simplified symmetric positive proton charge distribution that I’ve identified as a ‘positive electronic unit’ with  $\alpha_c = 7.66 \times 10^{-17}$  to match the proton’s mass), we obtain for the variation parameter:

$$\alpha_{mp} = 2.583 \times 10^{-4} \times 1.6726 \times 10^{-24} \times 7.66 \times 10^{-17} / 4.8 \times 10^{-10}$$

$$= 6.90 \times 10^{-35} \text{ cm}$$



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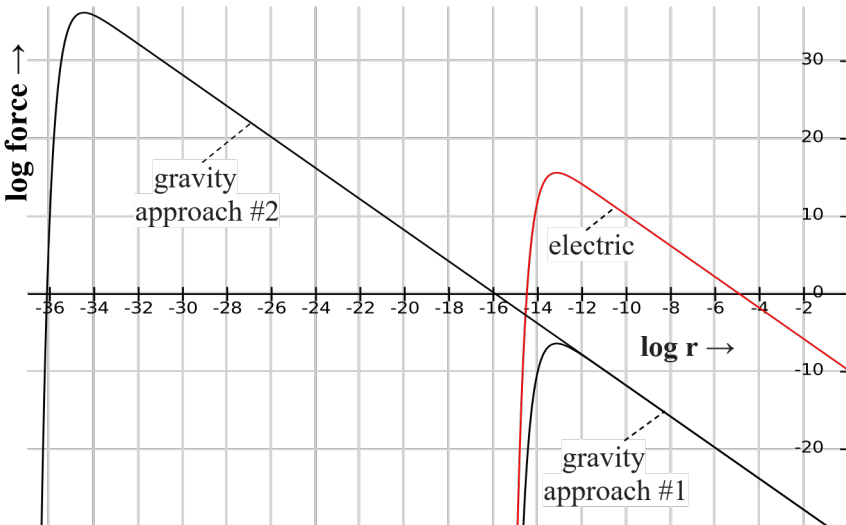
“If, on the other hand, we had used the symmetric electron parameters we would have obtained the very same value:

$$\begin{aligned} \alpha_{me} &= 2.583 \times 10^{-4} \times 9.109 \times 10^{-28} \times 1.409 \times 10^{-13} / 4.8 \times 10^{-10} \\ &= 6.90 \times 10^{-35} \text{ cm} \end{aligned}$$

“Thus, not only the rest mass  $m$  but also its separate variation parameter  $\alpha_m$ , are completely determined by the magnitude of the charge of a particle.”

Maria hopped in eagerly, “Yes, that makes sense to me. The second formula for  $\alpha_m$  involves only three universal constants  $G$ ,  $e$ , and  $c$ . The resulting mass distribution parameter is an incredibly short distance, but it is on the order of the ‘Planck distance’  $r_p$  which is commonly referred to as the ‘smallest measurement of length with any meaning’. That distance is approximately  $1.62 \times 10^{-33}$  cm. There is a combination of universal constants that is equal to this distance by the way:  $r_p = \sqrt{h G / 2 \pi c^3}$ . Your value for the width of the gravitational well involves just three universal constants as well, albeit it includes  $e$  instead of  $h$ . Both the formulas for the Planck minimal distance are based on energy considerations, which is also how you arrived at  $\alpha_m$ .”

“Interesting, Maria.” Julie said. “I see you plotted the absolute value of the forces on log scales; I’m including that variant in a plot with the alternative I came up with so we can compare them directly. Here they are. What do you think?”



“Yeah. It’s a tremendous difference; gravitation could provide the ‘strong force’ at short distances, with an immeasurable difference in functionality otherwise, isn’t it? They’re equivalent at separations less than ten-to-the-minus-thirteenth,” Roger stated.”

“So, it’s a matter of logic, Roger,” Maria quipped happily. “How does your god come down on this issue? You opined earlier that even immeasurable differences must be resolvable by logic.”

Ignoring their banter, Julie proceeded, “Here’s something I was working up to when you called. It presents the issue quite clearly I think. Did you get this plot?”

“Oh, I see it now,” Maria smiled, “It’s pretty besides.”

“The value comparisons of the charges and variances are just analogies to the values for real particles, but informative don’t you think?”

“Yeah. It shows the significance of where the switchover occurs.”

Julie was on a roll. “Clearly, the narrow gravitational potential well would keep any possible particle fragments ‘snapped’ into place like Legos. This deep however-narrow region would contain most all of the gravitational mass, so it isn’t proportionately distributed as in the approach you two identified. However, this well is infinitely wider but also infinitely shallower than would be associated with a dimensionless point particle. So there’s that.”

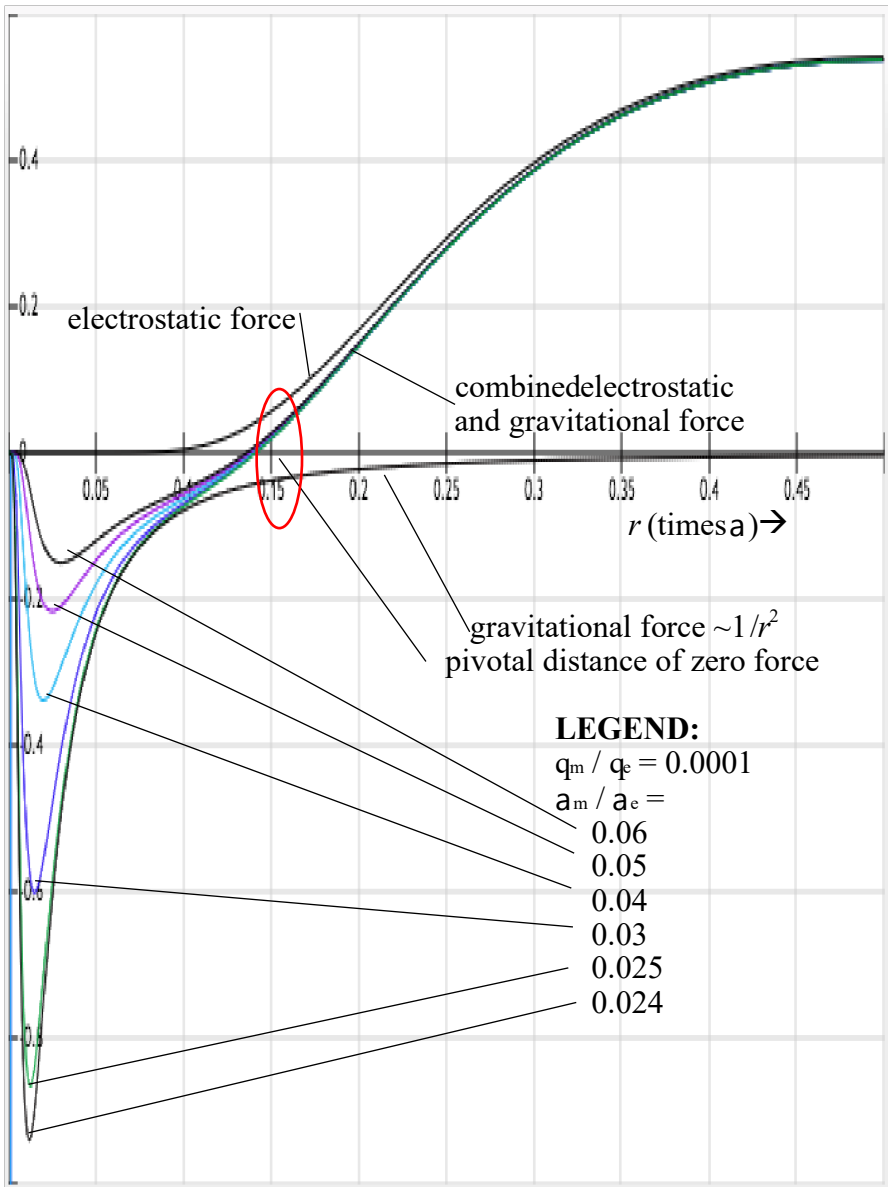
“Yeah. As a matter of fact, Julie, with your approach, if two down quarks were separated by less than ten-to-the-fifteenth centimeters, they’d quickly become a single particle with twice the charge. Want to reconsider the possibility of my three down quark electron?” He laughed.

“I see where you’re going with that; I haven’t forgotten your hang-up. I think about it less than I should. But yes, that is an observable distinction between the approaches. Hmm.”

“We’re going to have to make a decision on an approach before we can proceed, aren’t we,” Maria interjected.

“Yeah, that’s intriguing. What does it say about the additive nature of the two types of charge and the composite self-energy in these two cases? Either the charges can be directly additive or the potentials and forces can be directly additive but the variance cannot be additive, right? Am I thinking about this correctly?”





**Combined electrostatic and gravitational forces – Option #2**

“Well, let’s look at it again. Here are the alternatives:” She keyboarded them in as follows:

1)  $E_{\text{total}} = (q - \sqrt{G} m) e^{-\alpha e/r} / r^2$

$$2) E_{\text{total}} = (q e^{-\alpha e/r} - \sqrt{G} m e^{-\alpha m/r}) / r^2$$

$$3) E_{\text{total}} = (q - \sqrt{G} m) e^{-(\alpha e + \alpha m)/r} / r^2$$

“Alternative 3 is immeasurably different than alternative 1. As you say, the force is the observable so it’s the discriminate. Why don’t we put off a decision between options one and two until we see how it plays out at the quark level. Isn’t that what you were originally wanting to do. Roger?”

“Yeah, it is.”

“Well, why don’t you show us what you had in mind.”

“Yeah, okay. We”...” he hesitated, wondering where to start. “I rejected the gluon, remember?”

“Yes, I do, so let’s proceed without the gluon if you see that as possible.”

“Well, for reasons that are probably not obvious until further analyses, I selected the up and down quark with the following charge and variance properties:

$$q_{\text{up}} = 2/3 e, \alpha_{\text{up}} = 1.3 \times 10^{-17} \text{ cm and } q_{\text{down}} = 1/3 e, \alpha_{\text{down}} = 1.405 \times 10^{-13} \text{ cm.}”$$

“The charges are those traditionally assigned, of course, and I see the variance on your down quark is what we’ve assigned to the electron, which I assume you will take advantage of later in promoting your three-down-quark electron.” Julie noted. “Is that right, Roger?”

“Yeah.”

Maria broke into the conversation at this point. “Roger, I was looking at that notebook you brought out yesterday. You go into some arguments for the proton structure in there that I found interesting. There were some helpful diagrams in there too. Why don’t I copy a couple pages of that notebook and transmit them to Julie?”

“Yeah, sure. There’s a file on my laptop with the same name; why don’t you just scroll to the pages you mentioned and send them.”

“Was this in the electronic file you gave me when you were down here a while back?”

“I thinks it was, yeah.”

“I must have avoided looking at these pages then, so send them now.”

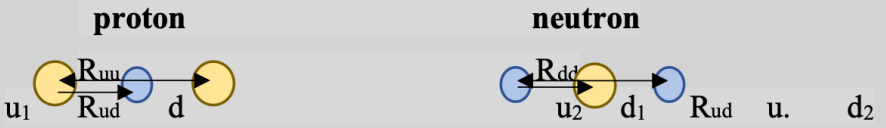
“They’ve been copied and sent,” Maria said. “But Roger why don’t you just read them off for us; we can follow along and hop in where we have questions?”

“Yeah, okay.”

Let’s start here; I see there are some typos, but I think we can read through them:

**major differences in the alternatives for quark forces**

So, let us proceed by considering interactions between the up and down quarks with characteristic distribution values to be justified later. For an inverse square law force, separated charged particles would attract or repel each other with increasing force as their separation is reduced – the amount increases to infinity as the separation goes to zero. In the alternative view involving the Poisson distribution, the inverse square law proportionality is ameliorated as the separation is reduced in the vicinity of the deviation factor  $\alpha$ , and this reduces the force to zero (rather than infinity) at zero separation. There is no singularity. This fact has significant ramifications with regard to the supposed substructure of the subatomic particles. In figure 3.7, a linear proton electric charge substructure is shown. The implications of a difference in charge distribution of fundamental particles is immediately obvious. Traditionally the proton is assumed to include two up quarks ( $u_1$  and  $u_2$ ) and one down quark ( $d$ ) as shown, ignoring the perceived role of the gluon for now.



$$F_{u1} \approx - e^2 / 9 R_{ud}^2, \text{ attraction} \qquad F_{d1} \approx - 7 e^2 / 72 R_{ud}^2, \text{ attraction}$$

**Figure 3.7: Classical view of electrostatic quark interaction**

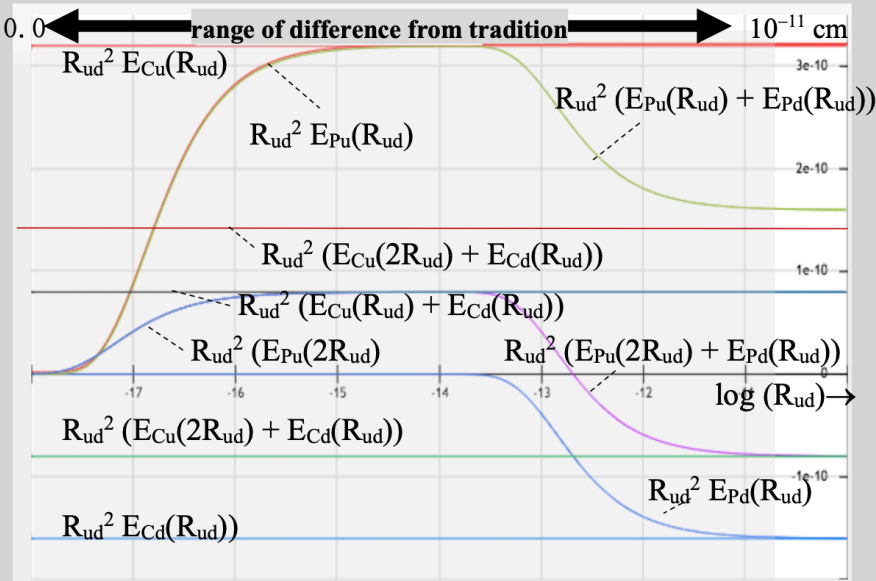
In figure 3.8 classical and Poisson electric field strength (divided by the common inverse-square factor  $1/R_{ud}^2$ ) that would be realized at the location of the up quark  $u_1$  in the proton that was illustrated in figure 3.7 are plotted. Of course the force is charge times the field strength. We append a ‘C’ to the subscript for the classical field strength and a ‘P’ for the Poisson field strength as follows:

$$E_{Ci}(R_{ij}) = q_i / R_{ij}^2 \qquad E_{Pi}(R_{ij}) = q_i e^{-\alpha 1/R_{ij}} / R_{ij}^2$$

The up quarks possess  $2/3$  of an electronic charge  $e$  and a down quark possesses  $1/3$  electronic charge. To maintain necessary symmetry, the more remote quark is at a distance  $2 R_{ud}$ . Clearly for separations of the

quarks of more that  $10^{-11}$  cm there are no field strength differences between the current conjecture and traditional approach. At shorter distances tremendous differences ensue which enforce stability.

Employing the Poisson distribution of charge rather than a point charge results in a different situation from the conventional conception. Relative to distances for which the influence of the inverted exponential form is required to adequately represent the field strength of the down quark, the charge density of the up quark can be accurately represented as a point charge. This is because its deviation factor is on the order of 500 times smaller than that of the down quark. Thus, forces between down and up quarks in the proton shown in the left panel of figure 3.7 can be represented as the force at the location of the left-most up quark,  $u_1$  as follows:



**Figure 3.8: Electrostatic field strength at the location of the left-most up quark in the left-most diagram in figure 4.5**

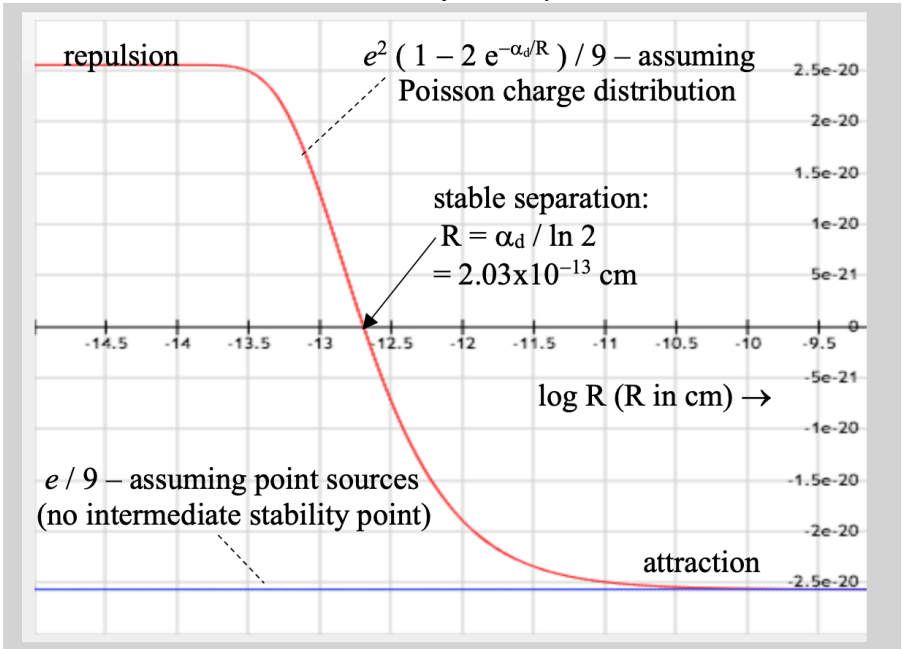
$$F_{du} = -q_u E_d(R_{ud}) = (2/9) e^2 e^{-\alpha_d/R_{ud}} / R_{ud}^2$$

$$F_{uu} = q_u E_u(R_{ud}) = (4/9) e^2 / 4 R_{uu}^2$$

So that the force on the up quark,  $u_1$  can be represented as:

$$F_{u1} = F_{uu} + F_{du} = (1/9) e^2 ( 1 - 2 e^{-\alpha_d/R_{ud}} ) / R_{ud}^2$$

## Matters of Gravity



“Oh, by the way, we need to avoid calling that a Poisson distribution. I pointed out to Roger earlier that that name applies to a variation of the binomial distribution.”

“Right. Good point, Maria; I should have caught that.”

“It’s no big thing, but...”

“So,” Julie commented after having considered the pages Roger had read aloud thoughtfully, “I guess we need to wait for your later chapters.”

“There’s not much more in that notebook after those pages, Roger. You did do the similar analysis for what you called the ‘dud’ neutron. I know your ideas didn’t stop there, but where did you document what should follow what you just read?” Maria asked.

“Is the ‘dud neutron’ a ‘normal’ neutron, Roger?” Julie smirked.

“Yeah, well. Since a neutron involves a neutral combination of quarks, the situation differs from that of the proton structure in part because the interaction of the down quarks occurs within the range of their density minima, increasing as well as altering the force between them. Thus, interactions of down quark  $d_1$  in that figure 3.7 must be handled as an integral of the forces throughout space. I think that determination should be a collective effort, particularly since there is seems to be some doubt among the troops about whether a ‘dud’ (down-up-down quark combination) neutron meets the necessary requirements for what is traditionally considered to be a neutron. That is sort of where I stopped ‘documenting’ as you say and went off after

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the redoubtable ‘octahedral neutron. My thoughts beyond that diverged into alternatives that you two will have to resolve if we are to be of one accord.”

“Okay, I get it,” Julie responded. “But what did your efforts to integrate the so-called ‘dud’ come up with?”

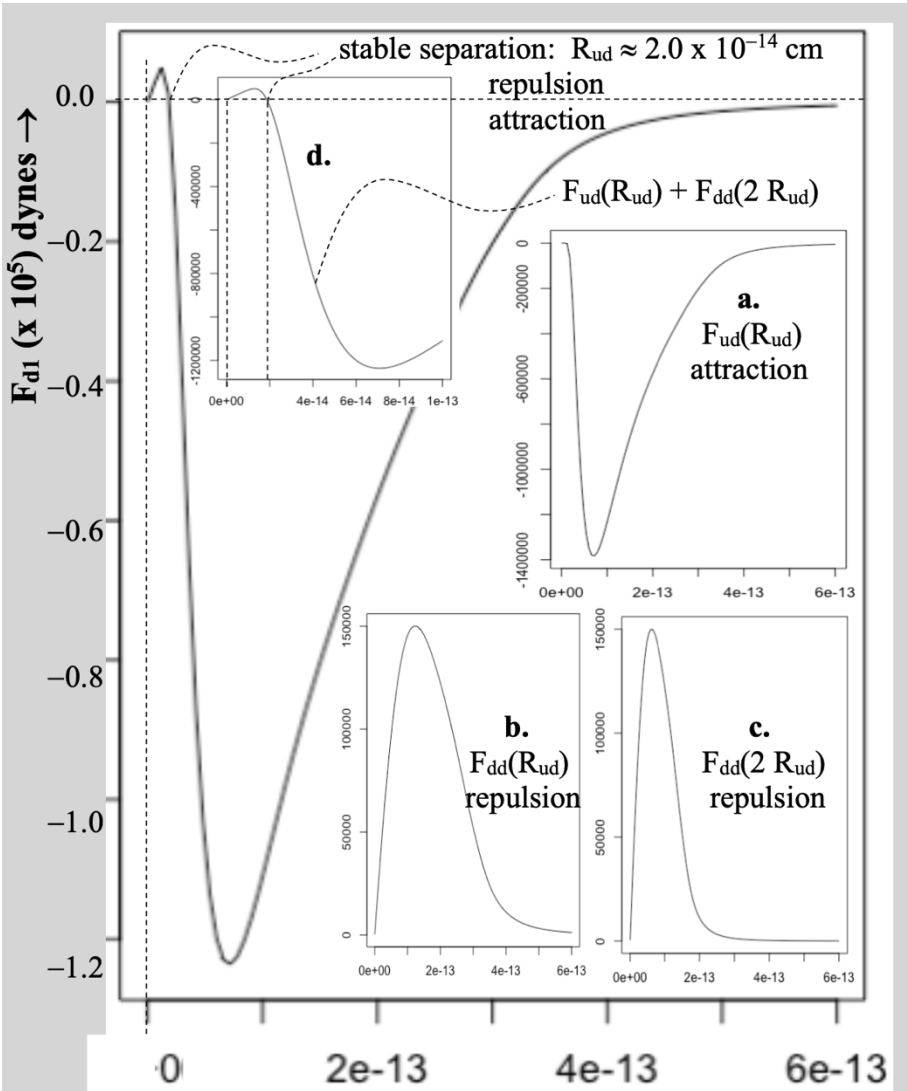
“Yeah, well... when the down quark  $d_1$  in the neutron (in the first figure in those pages) moves into position in the stable region of an assembled up and down quark, the other down quark will move away from the center of the up quark by an equivalent amount. So the neutron as well as the proton will be configured with stable separations of the quarks of which they are comprised. However, the stability separation of up and down quarks is ten times closer in the neutron structure than in the proton. You can probably see where the implications of that took my thinking.”

“Oh. Do you have a force or potential diagram that illustrates that?”

“Yeah, somewhere.”

“Roger, I was just scrounging through your files and found this composite diagram. Is it what we’re looking for?”

“Yeah, I think so. Send it to Julie. You’ll notice, Julie, that I’ve included all the individual force interactions as insets to this diagram. I think it’s pretty straight forward.”



**Figure 3.10: The various forces which bind the up and down quarks in the traditionally accepted neutron quark structure**

After an appreciable hesitation, Julie acknowledged receipt. “I see,” she said. “Let’s see what I come up with using my tools. What are major problems either of you see with one or the other of our two alternatives?”

Yeah. Well, I’m a little afraid that alternative #2 might lock the single down and up quarks so tightly that they couldn’t be separated to accommodate a second down quark moving into a stable position instead of being sucked into the center.”

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“And the problem with alternative #1 is that single particles may be subject to fragmentation, Right?” Maria asked.

“Yeah, It’s fragmentation or indivisibility That’s the dilemma.”

“So,” Maria hesitated. “Why not an intermediate alternative that provides less of a strong force than alternative #1 but yet provides sufficient to enforce indivisibility? A value of the variance that is between  $a_m$  and  $a_e$ .”

“Yeah.” Roger was excited. I think you’ve got it, Maria. We need to explore that.”

“Well, we have stuff to work on at a minimum. I’ve really enjoyed our effort today. I’ll think about your alternative #3 Maria.” Then, “When will you guys get down here in the Bay area on your visit to the other Bonns?”

“Tomorrow afternoon late. We were planning on getting with you day after tomorrow. Is your schedule okay with midafternoon?”

“Yes. That works well – 2:40 and onward. Take care guys.”



## 20 INTIMACY

The Tommy Bonns' new home was everything Maria had thought it would be. The bedroom in which she awoke was huge and the décor was Margie through and through. The tones in the post-modern images on the walls matched the colors of surfaces on which they hung whether Maria appreciated the art or not.

Roger was not with her now. He had exited more than an hour earlier saying that he and Tommy were going to work out. "Be careful," she had said, "You're not very used to that anymore." He had kissed her then without comment whereupon she drifted back to sleep thinking about their lovemaking of the night before.

But now there was a rap at the door, that was evidently why she had awoken. Margie let herself in without invitation.

An excited, "Hi," had Maria wide awake then as Margie flung herself on the bed beside her. "It is so fun to have you both here in our house."

"It's lovely. Everything is as perfect as I knew it would be."

"Do you think you'll move back to the Bay Area to live at some point once you pry Roger away from his hermitage? The Canyon is so God-awfully far away from everything."

"I really like it up there," Maria defended. "I've never had so much peace in my life."

"There's only so much you can say for 'peace' though, don't you agree? 'Peace on earth; good will to man', that sort of thing. That's for Christmas." She interrupted her own soliloquy with laughter. "In the end we all must be about something."

"Roger and I *are* 'about something' and we have a lot of fun besides. It will be nice to coordinate directly with Julie on a couple of issues while we're down here, but we coordinate pretty well with 'sky hype'. We want to check out some old texts at the physics library on the farm while we're here though, but we are not out of touch; we communicate to the outside world often and have plenty of access to everything we need."

Margie bounced up, "Sky hype?" she mimicked as she entered the adjoining bathroom.

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Shortly Maria heard the trash can in the bathroom open and shut by foot pressure, then the toilet flushed, and finally she heard the faucet followed by Margie's return.

"Don't you two want children?" Margie queried as she flopped once more upon the bed.

Maria could only stare at her inscrutable sister-in-law.

"Well, don't you?" Margie insisted.

"That's a very private matter I would think. We haven't discussed that possibility yet actually."

"Why not? You must have made some kind of decision if you're still using condoms."

Maria found herself instantly angry at the thought of Margie's having checked their trash. She recalled the perpetual disagreements between Roger and Margie that she had not been a party to – until now – and that she could never previously have understood.

"So does this mean that you and Tommy have quit using birth control?" was all Maria could think of as a response.

"No, of course not," was Margie's retort. "We never started."

"Never started? Are you kidding? How long ago did you 'never start'? You had to have started making love at some point." Maria chuckled almost vindictively now.

"Years."

"Years? How many years?"

"We never started when we 'started' because we loved each other and that was years ago."

"You may not have known about Tommy's precautions but I'm sure he took precautions."

Margie ignored the comment and continued on a lighter note. "But I think it would be fun if we both had our kids close enough together so they could enjoy each other growing up."

"Are you promoting déjà vu all over again for another generation of 'single-child-twins'? That seems to have been a big deal in the Bonn tribe?"

"It is a big deal." Margie responded unabashed. "Didn't you have a close family peer growing up – a 'kissing cousin' maybe?"

"No, I didn't"

"Well, you missed a lot then." Margie stated succinctly, hopping up off the bed. As she left the room she said, "breakfast will be served in twenty minutes."

By conscious volition Maria remained silent till the sound of Margie's steps had been silenced by distance.

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After a brief shower and before she had quite completed drying herself off, she stepped over to the trash can, stepped on the lever to inspect the contents.

There was no condom. She seethed.

She finished her ablutions quickly and as she was stepping down the stairs, she heard Roger and Tommy arrive from the gym. She noted that Margie had known exactly when they would return. Suddenly the sense of what ‘controlling’ is all about dawned on Maria.

Breakfast was... a proper breakfast – healthy and, yes, tasty and satisfying, but... contrived. Yes, contrived. Even as Maria formulated her thoughts on the arcane topic of ‘breakfast’ it seemed a strange way to characterize a breakfast, but there it was. Contrived, the product of ‘control’, too proportioned, too complete, too overthought.

Having completed the ‘contrived’ breakfast, Roger set their day in motion, by grabbing jackets and announcing they would be back in time to go out for dinner later.

“Will you have Julie in tow?” Margie asked.

“I don’t know,” was all Roger volunteered.

“Well, ask her. She needs to feel welcome.”

“Oh, god,” Roger proclaimed as he glanced back at Margie adding, “She knows she is welcome to go to dinner with us anytime.”

“Just make sure, Bro.”

They were out the door. “God,” was spoken by Roger and was echoed throughout Maria’s being.

“She is a little controlling, isn’t she?”

“Duh.”

The physics building brought back a multitude of memories for both Roger and Maria as they entered through heavy doors. “I loved this place,” Maria said.

“Me too.”

They were up the stairs and down the hall to Julie’s open door with reunion giddiness all of them got into.

Finally, “What’s new?” began a heated debate with all three moving about the table to look at one laptop and then another, but only after Maria’s ring had been inspected. This conversation eventually deteriorated, if one could use that term, into open disagreement with regard to the purpose of their collaboration.

“I thought our effort was to be concentrated on the merger of electricity and gravitation,” Julie said, seeming somewhat confused with what she was seeing and hearing from Roger and Maria. “You two seem to have gone totally off course into a restructuring of the

standard particle model. I thought we were trying to explain gravity, but you are using gravity – however it is explained – as the rationale for the indivisibility of a new set of fundamental particles that cannot be accommodated by electricity alone. Aren't I right about that?"

Maria and Roger glanced at each other. Maria was the first to speak. "Yes, I think that is what it might come to, except that it is based on the electrostatic explanation of mass and therefore of gravity, which is still our joint mission I think."

Julie seemed somewhat irritated as she stared at Maria, then looked away thoughtfully for a moment. Having formulated her thought she stated, "That's a lot to take on – as if a new theory of gravity isn't enough."

Roger stepped in, "Well, the proper Poisson basis of electricity, while avoiding the singularity problem, requires the similar Poisson explanation of gravity to provide the indivisibility lost by giving up the concept of point charges." He paused. "We're not certain of that but I think we'll find it to be true. So that is an issue the three of us must get figured out for certain. If it is the case, it naturally makes the composition of indivisible particles a pretty damned interesting issue that can't be ignored while we do something else."

"I see that," Julie said. "But I feel a little blind-sided by this new emphasis."

"It's new to us too," Maria excused. "Much of the rationale for our coming down here was to get this collaboration wrestled around to something we're all comfortable with."

"How new is it to you two?" She paused and then added caustically, "You wouldn't have come down to Margie and Tommy's wedding?"

"Yeah, of course we'd have come down to their wedding – whenever it was." Roger inserted into the conversation and then proceeded, "It was just last week that Maria told me that you and she had not accepted the proof of the inverted exponential. So we worked through it. That's when the possibility of a separate but similar distribution for the mass of an indivisible particle came up. Immediately we both stated that we had to get with you to make sure our hunch was correct. And we did and here we are."

"Oh, okay," Julie said, her more usual serenity having returned. "Let's do that discussion."

So they did. And having worked through it, Julie suggested that they write down a list of things to do and positions to be confirmed. She seemed quite consciously to set out two distinct areas, one concerning the field theoretical areas of electrostatics and gravitation

and the other having to do with specific fundamental particles to which the field theoretical solutions could be applied.

Maria for her part began making the list. “Okay,” she said, “What is item number one?” Whereupon with prolonged discussions relative to priorities and status of each item, they came up with the following list of limitations of scope – obviously not very limiting:

1. The investigation will address luminous (baryonic) matter exclusively.

2. This will involve characterizing only the particles which combine to produce the elements of the Periodic Table.

3. We will attempt to understand the relationship of electric charge and rest mass in the most fundamental particles, demonstrating the following:

4. Electric charge of particles exists only as continuous distributions.

5. The rest mass of a fundamental particle is the ‘self-energy’ of the electric charge distribution divided by the square of the speed of light.

6. The rest mass of particles also exists only as continuous distributions.

7. The distributions of both the electric charge and the rest mass of fundamental particles result as field theoretic solutions of the Poisson equation boundary value problem.

8. The boundary of the problem includes the origin at the center of basic particles.

9. Gravitational force is determined by a charge similar to electric charge, but whose value is always minus  $\ddot{O}G$  times the rest mass associated with individual fundamental particles.

10. Gravitational charge is what provides indivisibility of fundamental particles as well as the traditional gravitational force between neutral composite objects.

11. Electric and gravitational charge can be combined to give a single solution to the Poisson equation.

12. Electric and gravitational charge distributions do not exist as mathematical ‘point’ charges although they may sometimes be treated so by using Dirac delta functions.

13. Electric and gravitational forces do not exhibit action-at-a-distance.

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These thirteen were unanimous choices. In particular, Julie was exuberant in her support of efforts to demonstrate every item on that list. But unanimity was absent with regard to the additional items that both Roger and Maria insisted upon. Julie's acceptance waned as more items were added.

14. The field theoretical approach embraced in the forgoing items applies specifically to the fundamental particles denominated up and down quarks. 15. The role of the traditionally accepted gluon is rejected.

16. The proton is accepted as involving the two up and one down quark composition similar to the standard model.

17. The neutron is accepted as involving a doublet of the two down and one up quark structure of a neutron in the standard model. Although whether that combined structure persists or only exists transiently prior to decay needs to be explored.

18. The electron is (tentatively) accepted as being composed of three down quarks.

19. Beta plus and beta minus decay of the neutron will be further studied to determine the viability of items 17 and 18.

20. The ramifications of quark color and spin must be addressed.

21. The role of the neutrino in the new structure must be investigated.

By the end of their time together it was very clear that Julie was completely appeased by the first thirteen items on the list. She still had leanings toward the application of the approach to protons and electrons directly rather than going down another level, but she acknowledged legitimacy to their counter arguments. The rejection of gluons was difficult for her to allow, although again, she recognized value to their position. She "would need to consider it further and maybe just get used to it," she acknowledged. The last four items on the list she contested quite vigorously, accepting them on the list only as being Maria and Roger's lower priority tasks, a major aspect of which was convincing her of the legitimacy of these efforts.

But finally after a day's hard work it would be fair to say, they had the basis for a plan. They agreed to meet again the very next day to schedule out activities and assignments with milestones to be met.

"So that about does it for today," Roger said as he rose with his lap top closed and under his arm.

"Not quite," Maria interjected to Julie's readiness for hugs. "Remember, we are supposed to insist that Julie join the Bonn family

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for dinner. We don't know exactly where yet, but Margie will have it all figured out when we get there. Oh, and she was going to get Lisa to join as well."

"How nice!" Julie exclaimed. "Sure, I'd love to do that. I've talked to Lisa occasionally and actually went to a play with her, but that was a month or so ago now. She always raises my spirits when we talk. I haven't been to Tommy and Margie's new place yet. I'll follow you, but you'll have to keep an eye on me, so you don't lose me in the traffic."

After they were in their cars and on the way, Maria asked Roger how he felt the day had gone and acknowledged that she probably should have ridden with Julie.

"Good. Yeah, it went well; I knew she wouldn't buy in completely on the restructuring of the standard model right away, but we'll be able to convince her."

"Yes. We're a pretty good team don't you think?"

"Yeah, we are. Oh-oh." He tapped the breaks. "She didn't make that light; I'll just pull over and wait till she's through it."

Other than that the trip was uneventful. Margie had opted for Thai food, to which no one objected on the i-phone coordination of which restaurant and its location. Lisa was already there when they arrived, and everyone greeted each other as the great friends and family they had all become. They shared entrees and green tea with much merriment and pleasant conversation, Lisa disclosing that she had gone for her first dose of Chemo that very morning.

"Oh my," Maria exclaimed. "You didn't tell us there was a problem. How serious is it?"

"If you're having chemo, it's serious. How long have you known?" Julie asked.

"Not long. They got right on it. I'm glad this dinner was tonight; I guess I may not be feeling so well tomorrow."

"It's unpleasant at best," Margie contributed. "I dislike having to go to the doctor under any circumstances and women have to do that a lot more often than men. I went to see my lady doctor today – just routine, but still."

"I hope you're not experiencing serious issues at your age Margie; you seem so healthy," Lisa responded.

"Oh, I am. It's just the bad design of the dual-function structures down there." There was some laughter. "Does your issue have something to do with those structures Lisa?"

"It may have started there. I don't know. But please, let's talk about the cheery aspects of the weddings and honeymoons."

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“Yes, okay, but let me come over tomorrow to contribute to what might be the bad day.” It was Maria who said it, glancing at Roger as she did. “You and Julie can line us up tomorrow without me.”

“There’s no need,” Lisa said. “The wedding is Saturday, right? That’s a priority. So do the four of you plan a double honeymoon afterward?”

“The wedding’s Saturday? Margie, you never told me,” Julie complained.

“Okay, you’re invited,” Margie laughed. “But just so you know, you were not excluded from any list. We were going to do the private service with a Justice of the Peace like Maria and Roger, but then we decided to force Roger to give me away – like he would object to that – well, if it wasn’t to his baby boy,” to which even Roger and Tommy laughed. “And nothing in this family is complete without Aunt Lisa. And you are family too, Julie, so do come. I wish the other Julie who was as close as I ever came to having a real mother could be here.”

“You’re getting married on Saturday to a person most would consider your nephew, and there’s no big deal about it?” Julie laughed but seemed unabashedly aghast. “What ever happened to the sanctity of marriage?”

“And this isn’t your grandma’s GOP either,” Margie responded.

“God, Margie. ‘Grand Old Party? What are you talking about?’”

“I’m just saying, there ain’t gonna be no effing party.”

“No, of course not. And the honeymoon?” Lisa persisted with her original question.

Maria broke in, “We think we’ve opted for a joint honeymoon somewhere where we can embarrass ourselves skiing, but we haven’t decided just where.”

Conversation continued at length following Lisa’s “Lovely,” response – mostly topics which Tommy and Roger avoided. Until finally they were all up from the table with Tommy grabbing the bill from Roger, but without making a show of it other than a deftness and definiteness with which he did it.

They returned to Margie and Tommy’s home in the four cars in which they had come. They all went into some cookies and coffee with wine for the abstainers. They spent nearly a half hour touring and approving the Tommy Bonn residence, with Margie’s justifications for how everything had been planned. Lisa departed first, followed immediately by Julie. As Julie left Maria and Julie noted their formerly agreed time for meeting the next day, but with Maria confirming that she would probably opt out to spend some time with Lisa.



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When the door had finally been shut on the departing guests.

“So, how did the science go today?” It was Margie’s forced motivation for continued conversation as they sat back down in lieu of shuffling off to bed.

“It went well,” Maria parried. “We have a plan.”

“A plan for just exactly what?”

“We don’t exactly know,” Roger responded rather too quickly and then struck out vindictively. “By the way, what exactly is the status of your thesis? Did you ever finish it? How long will they give you? I have been wondering how long it would take you to rewrite the first chapter of Genesis.”

“Whoa! Roger, don’t you worry none, Bro. They’ll give me the degree.”

“She’s working on it,” Tommy broke in defensively. “She’s been really busy you know.”

“I’ll show you our plan for how we will proceed in the morning if you really want to see it.” It was Maria again.

“I do,” Margie said. “And what about this honeymoon thing?”

“You two can work on that later,” Roger broke in. “It’s time for bed.”

“Yeah, me too,” Tommy echoed.

Not letting the conversation go just yet, Maria asked, “But what about the doctor’s appointment you had today; what was that all about?”

“It was nothing – Planned Parenthood, if you can imagine me asking advice on that. But Aunt Lisa must have a major issue; you’ll check that out for us tomorrow, won’t you?”

“Yes, I will.” Then, rising she said, “Thanks for a marvelous evening.”

So then shortly Maria and Roger were crawling into bed and as they did,

Maria asked, “What do you do with condoms afterward?”

“What?” Roger just started laughing.

“Do you flush them down the toilet?”

“Of course not. God. Every teenager knows not to do that.”

“Well, what then?”

“I put them in the same place you put tampons – in the garbage. Who cares?”

“I just wondered. I don’t ever think to even notice them.”

“Well, they’re there, but probably not at the same time as your tampons,” he laughed again.

“No, they wouldn’t be.”

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“Do you want to have sex again? Is that what this is all about?”

“I want love,” she said, “not sex.”

“Love it is then. With or without the condom?”

“Just like that, with no further conversation? What happened to good old-fashioned foreplay?”

“What? What the hell are you on about?”

“I mean do you want another child sometime?”

“I just wanted to know whether you wanted sex.”

“No, no, I don’t”

“Oh God, what have I done wrong?”

“Nothing,” she said. “I’m just a little tired. It’s been a big day.”

“Yeah. That’s fine,” he said and turned out the light.

After a bit Maria asked, “Have you ever thought about what could be done with a used condom?”

The light was back on in an instant. “What in hell are you talking about?” He was sitting up looking down on her now.

“Haven’t you ever wondered when you saw a used condom lying around in a parking lot or in a park or somewhere whether a criminal could use it to plant evidence to incriminate someone else? I mean couldn’t something illegitimate be done with them.”

“Maria, go to sleep.”

“...like for any other purpose that you wouldn’t want your name associated with?”

He turned out the light again. “I promise I won’t leave any lying around in a parking lot.”

After the light had been out for some time, Maria asked again, “Would you like another child?”

He laughed, “With you, of course I would if you wanted one!” And then it went from there.

## 21 STEP ONE OF THE PLANS

Breakfast on this morning was about options, trivial and otherwise, Wheaties or Raisin Bran, and the alps or the northwest.

“Wheaties,” Roger said.

“There’s a lot to recommend the cascade slopes; from Bachelor to Whistler there are a lot of decent resorts,” Margie said, seeming to have just continued a conversation Roger had just happened into.

“Would we have a problem flying into North Bend to get to Bachelor?” Maria asked, whereupon they all looked from one to the other. “Maybe we should leave Bachelor out of the tour.”

“It’d be nice to do a complete tour though. Would you be alright with it, Tommy? Roger? We would just pass through the airport at North Bend,” Margie contributed.

“It’d be fine,” Tommy said. “I think I need to straighten out some of those memories anyway.”

“Yeah. Me too,” Roger added after a bit of thought.”

“So, we’re doing the complete tour then – the tour de force?” Maria asked.

“Yes, can we schedule the flights to begin right after our wedding? Then end up doing Baker and collapse at the Canyon if we’re done with skiing.”

“And then kayaking,” Tommy said. “I like doing that.”

“Yeah, I’m up for that.”

“Should I work a schedule while you two are out doing what you do?” Margie asked.

They all agreed that that would be fine. Tommy went to work out and Roger and Maria went to their separate destinations, Roger dropping Maria off at Lisa’s on his way to the campus, Maria regretting that she couldn’t be in two places at once.

There were a couple of professors in Julie’s office when Roger arrived, so he walked the halls till their meeting was over, each of them acknowledging Roger as they left, with deference to his being an alumnus and, of course, the achievements in his sports career. Roger only recognized one of them vaguely and another he thought he remembered as being President of the University. It amused him as

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he convinced himself that Julie would not have been informing them of ‘the plan’. This must be something else.

“So... is this a bad day to proceed?” he asked as he entered the office. “No. Just a day at the office; you are so lucky to be retired Roger.”

“Actually, I’ve never actually done a day’s work in my life,” he laughed. “I’ve had the same luxury that Willie Mays bragged about with that statement on his own behalf. So I’ve never been anything *but* retired.”

“I guess I shouldn’t complain either; I’ve always done what I love as well. But I guess at a certain point seniority forces responsibility. You had to have felt that your last few years – announcers always made a point of what it meant for a team to have you in the dugout.”

“So isn’t Ben maintaining a very tight ship?”

She laughed at his insight. “No, he isn’t really. This is hush-hush, top-secret stuff though.”

“Oh yeah?”

“Yeah.”

Roger laughed. “Ben’s been a bad boy?”

“A very bad boy – with boys no less.”

“Oh god.”

“As of Monday I’ll be acting dean whether I want to or not.”

“I think it’s a role that suits your acting ability.”

“Roger, could we just get back to work? I haven’t had time to completely absorb the notion of the gravity well at the center of electrically charged particles, but I do see the merits of it. Doesn’t gravitational potential enter into the formula for particle mass though? And how do you see mass per se and gravitational charge as distinct one from the other?”

“Yeah, well, the gravitational contribution to the rest mass of a particle is so tiny it’s virtually nonexistent anyway. And... as Maria told you, a bunch of our thinking on this topic just occurred last week. We’ve actually been AWOL on this stuff for a long time. Maria explained some of what you and she had discussed while I was totally out of it and we began working from there.”

“What did she say had been the emphasis of our discussions?”

“She indicated that she thought you were just involving her to get her out of her depression, which she seems to think was what saved her, but she doesn’t feel like she had absorbed as much as she wishes she had. The aspect that got my attention from her comments was that you weren’t sure of the derivation of what we incorrectly calling the ‘Poisson distribution’. I hadn’t really worked it out in sufficient detail

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myself other than it being more or less an intuition, but we worked it out together, convincing ourselves that for spherical distributions it is the unique (as in the ‘only’) solution to the Poisson differential equation with the complete boundary conditions. You seemed to agree with us on that when we last talked about it.”

“Yes. It’s a convincing proof. It’s amazing no one came up with that before; I guess no one ever thought the origin should be considered a boundary in that case, but it usually is and it has to be. But what about the initial intuition that we started from, that derived in turn from your father’s intuition, with regard to gravitation being a residual effect of electrostatics in electrically neutral objects? We’re not abandoning that are we?”

“I don’t think so. Let’s suppose that gravitational charge is the ‘real’ mass quantity,” he laughed as though he had just told a joke, “in a sense that I won’t even try to define and when I look up the word ‘real’ that makes no sense either. But in any case, when we theorize, we ‘reify’ some of our constructs and not others, right? So, let’s reify gravitational charge as what ‘mass’ *is*.”

“I feel your pain Sir,” she said smiling. “I know what you’re getting at to the extent that the two aspects of mass must be distinguished and one of them seems more basic or ‘real’ than the other.”

“Yeah. It gets complicated: There’s Newton’s  $F = m a$ , which was modified once because of Einstein’s special theory to it being the derivative of momentum with respect to time. This informs us of an inertial aspect of mass that distinguishes a kinetic energy aspect that is addressed by the formula  $E = m c^2$ . Then there is gravitational mass, determined as the propensity of massive bodies to attract one another.“ He paused, “or, alternatively, of course this mass is said to distort the spacetime continuum to virtually the same effect. These have all been conflated to add to our confusion.”

“Yes,” Julie confirmed, “the Etvos experiments confirm that the symbol ‘m’ takes on the same value whether used to assess gravitation, inertial forces, or geodesics. But there is the gravitational constant that distinguishes use in the gravitational context.”

“Yeah. But Robert Dicke wasn’t convinced even though he reduced the measurable difference between them. I think maybe a better distinction is simply between the potential and kinetic energy of a particle.”

“That would be helpful, but how so?”

“I mean we have always distinguished electricity and gravitation as separate forces (or modes of force) acting on particles, which is what we originally decided to dispute. With what we were calling

option #1 there is just *charge* which has an electrostatic and a gravitational aspect. I think I prefer that to your option #2 that involves separate forces. However, with option #1, fragmentation is a problem.”

“Show me again how you see that working. I’ve been so busy with departmental crap that I haven’t been able to spend the enjoyable time I wanted to spend.”

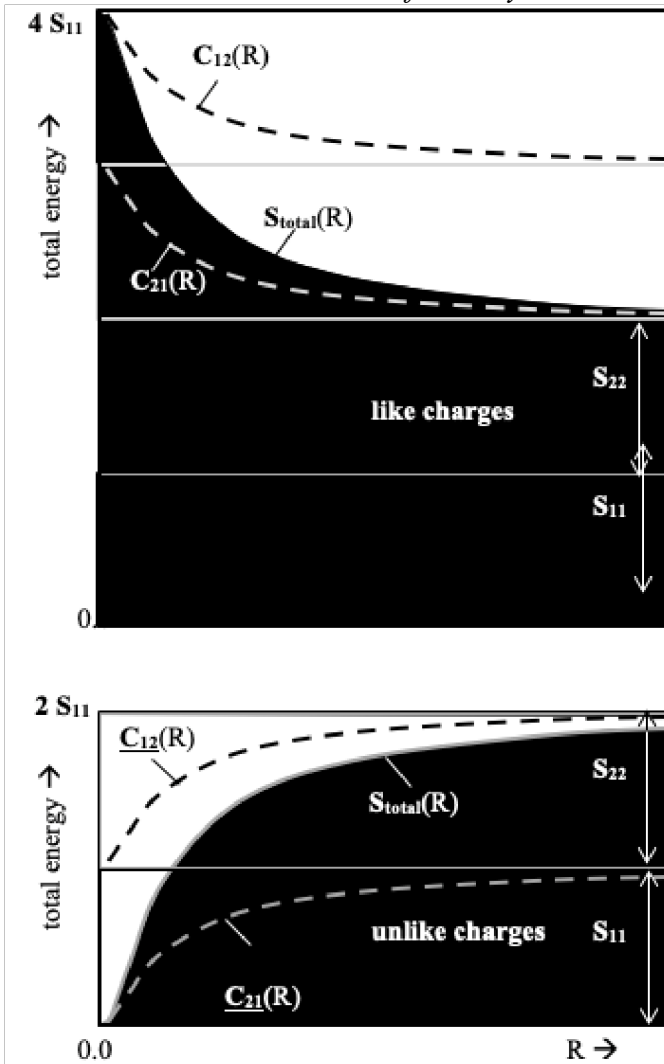
“Yeah, okay.” He paused, gathering concepts in his mind. “Well, by assuming electric charge alone, a given amount of charge and self-energy (rest mass) will be distributed in accordance with the inverted exponential distribution with charge and energy the two parameters of the distribution. The problem is that the same amount of charge could be distributed in any one of multiple Poisson distributions with more or less total energy. Then what would enforce indivisibility of fundamental particles if not their mass? He pointed to a figure on his laptop that showed total energy as a function of the separation of centers of two particles that Maria had plotted.  $S$  is self-energy  $C$  is the potential of one particle due to the other.”

“What do you mean by, ‘enforce’ it?”

“Energy would be released by fragmentation of a particle. But only if we don’t take the gravitational charge into account which option # 2 does. Once they get really close, they’ll snap in like Legos because of that gravitational potential energy well at the center. Now look at the comparison and composition of electrostatic and gravitational fields strength in this figure that you showed Maria and me the other day. He pointed to a page on his laptop. It fixes that problem, but I think it fixes it too well. Because, when we look at a primordial quark soup an up and a down quark would lock on and become a single immutable dup particle.”

“A ‘dup’ particle?” She laughed. “I’ll have to review our analyses again, but I do get it; I understand why we must take this down to the level of the up and down quarks. It’s a little different from what we set out to prove with regard to gravitation being a small part of electrostatics. Now we’re wondering whether gravitational charge is essential to the indivisibility of fundamental particles – the ‘strong’ force. Without gravity there might be no charged particles at all.”

“Yeah, exactly. I think we’re seeing that neither option is exactly what we want.”



**Figure 3.6: Total energy profiles of two identical distributions of electric charge as functions of separation of their centers**

“Nice,” she said. “I wonder how that zero energy down below ten-to-the-thirty-fifth centimeters would play into the Higgs field.”

They both seemed to contemplate that for some seconds.

Then Roger asked, “Will being dean affect your willingness to engage in crank science?”

“It won’t. I will say no to acting as dean if it affects my ability to work on this. I don’t see how it would though, do you?”

“Of course not.” He laughed. “It might give us superpowers.”

“I might be in a bad mood more often though if Ben keeps bugging me.”

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“Is he contacting you through all this?”

“He reflects badly on the school as well as himself and he would like me to help save *his* reputation.”

“He deserves whatever affect it has on him, doesn’t he?”

“Yes.”

“So why do you even talk to him?”

“He threatens to expose Maria and my relationships with Edward – as well as others – and I must say I feel a little sorry for him, okay?”

“Why? Why would you feel sorry for him when he is a molester and an extortionist.”

“Because however bad he has been, Edward was as bad, and no one ever confronted Edward.” She paused. “Somehow, the fact that Edward did it all with women made it not so bad. Does that seem fair to you?”

“No. No, it doesn’t. But does Ben expect you to explain that to the regents?”

“He would like that, yes.”

“Oh, god.”

“Exactly.”

Just then Roger’s phone did its Maria tone. “Hi.”

“Um, Roger, uh..., how’s it going?”

“Good. There?”

“Not so well. Do you think you could break away and get here pretty quickly?”

“Yeah, I’ll be there.”

Julie showed concern. “Is everything okay? You go ahead. I have meetings this afternoon with the powers that be. Let’s talk later, okay.”

Roger had his laptop disconnected and closed. “Later,” he said. And he was off.

Roger knocked and to his surprise it was Ben who opened the door. “Hello, Roger.”

As he entered, he noticed Maria with her arms around a sobbing Lisa.

“What are you doing here Ben,” Roger demanded.

“I need help, Roger.”

“From these two women? Let’s break it down Ben, what do you need?”

“I need Maria and Lisa to explain to the committee that Dean Bonn did worse things than I have done, and no one tried to dismiss him. So why me?”



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Roger glared at him. “Ben, listen to me like you’ve never listened to anyone in your entire life. I am not going to play psychologist with you; I’m threatening your life, okay? I am a human being just like you, but I’m a hell of a lot stronger than you. I have threatened men who were tougher and better connected than you, and with less intelligence than you suppose yourself to have, but they were smart enough not to challenge my threats. You had better be too. It’s a genetic thing Ben. My father was that way too. You threaten the women I love, and I will beat you to a pile of bloody pulp that can no longer breathe. So sit down. No, over there on that stool.” He pointed to a stool at the bar. After Ben had cowered to the stool Roger continued, “Now, very slowly, with me maintaining whatever restraint I can muster, respectfully – and I mean very *very* respectfully – explain to us what you have done wrong for which you are requesting help.”

Ben was sobbing now. “They’ve accused me of abusing my authority as dean.”

“Did you?”

“Well, not intentionally. I became infatuated with someone; I made my intentions known, and they reported me.”

“They, more than one?”

“Yes, but... I thought it was mutual.”

“Students?”

“Yes.”

“Under eighteen?”

“No, I think they were all over eighteen.”

“How many complained?”

“Three.”

“Did any or all of these three situations involve consent?”

“Yes, I think all of them.”

“You think? Then why did they file complaints?”

“Jealousy, I think.”

“Do you think any of them would admit to their having consented?”

“Yes, I think they might have that decency.”

“Is there anything else that’s relevant that I need to know?”

“I didn’t think you needed to know at all. I was just trying to round up relevant witnesses to vouch for my not being such a bad person.”

“Did Maria or Lisa witness any of the incidents of which you are accused?”

“No, but...”. Roger put his hand up threateningly.

“There are no buts Ben; I just want facts concerning what you have done.”

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“Dean Bonn did worse things,” Ben spoke even though Roger had his fist in the air.

“Ben, you answer my questions, nothing more. Do you have that concept securely fixed in your frontal lobes?” He virtually yelled. “Because if you speak out of turn once more, you won’t wake up till tomorrow – if then. Got it?”

“Yes, sir,” Ben cowered

“Henry the eighth did some pretty horrible things that he got away with. There are truly awful things that Donald J. Trump did and got away unscathed with doing them. There are many powerful people down through history, popes, kings, presidents, senators, congressmen, governors, deans, regents, and garden variety teachers and priests, and probably even dog catchers who have gotten away with things that I dare say were worse than anything you could conceive of doing. The people to whom their crimes were committed are off limits for your defense. Do you understand what I’m telling you?”

“Yes.”

“Has any of your research or teaching achievements reflected well on the university?”

“I have always thought so; I think that’s why they made me dean.”

“Perhaps.” Roger paused reflectively. “Is there any remedy for what you’ve done? I mean could a legally mediated interaction convince the committee and those who complained that you are truly sorry for your behavior and that similar situations would never happen again if you were allowed to continue without the responsibility and authority of being dean?”

“I don’t know, but I would hope so.”

“In this day and age we all know that sexually abusing men or boys is not worse or better than abusing women or girls. It is terribly wrong. That’s what we know Ben. Period. So why don’t you forget about restoring your credibility by tearing down anyone else’s reputation and restore your own in the proper way with sincere remorse and a good faith offer to work to restore confidence no matter what hoops you are forced to go through. You may be able to make something like that work for you and in a worst-case scenario, you can still do science as an independent; I know you are connected to wealth. Does that seem reasonable to you?”

“Yes. I will do that.”

“Good. In any case, and I do mean in *any* case, do not forget the threat with which I began, because I won’t. Before you bring anyone’s reputation in to save your sorry ass, ask yourself whether Roger Bonn

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would object, because if Roger Bonn does, he will fucking kill you. Got that?”

“Yes. Thank you.”

“Now, get out; don’t ever come back here – ever – and do not contact Julie Thompson again either.” He paused. “Got it?”

Ben nodded, terrified as he stepped quickly to the door and was gone.

There was silence in the house for some time. Finally Maria spoke.

“That’s a side of you I hadn’t ever seen,” she said. “It terrifies me.”

“Thank you for coming and sorting this out for me,” Lisa stated barely above a whisper at first and then with more strength. “Edward set a bad precedent I’m afraid.”

“It’ll be okay now. Ben was just trying to justify himself rather than address his real problem.”

“Yes. Yes, he was.”

“He said he was going to get Julie to ‘go to bat’ for him,” Maria said. “I told him that he shouldn’t and so did Lisa. Is Julie going to be okay?”

“I think so. She saw the hypocrisy of authority in addressing homosexuality more harshly than if it were heterosexual abuse. That is a legitimate point. That was her only concern; she certainly isn’t going to be airing laundry.”

“Yes, that’s a good point, and no, Julie wouldn’t be unkind to anyone,” Lisa commented thoughtfully, “You actually helped Ben out with that issue I thought.” She paused. “You reminded me of your father in the way you handled that.”

“Yeah, well. Other than that, how are you feeling today, Lisa?”

“Oh, I’ll be fine. Tomorrow should be a better day. Maria was grand again and I’m so looking forward to the wedding. Elizabeth called and expressed her wish that she could be at the wedding, but it’d be awkward for her.”

“How was your time with Julie?” Maria asked. “What did she say about Ben’s situation?”

“Well, for starters she is now the acting dean.”

“That’s wonderful,” Lisa said. “She should have been their first choice.”

“Absolutely,” Maria agreed.

“Yeah. She had been their first choice you know, and she had refused it. Anyway, we didn’t spend much time on that. She doesn’t want it to affect what she’s doing with us. We talked about the proof of the Poisson-related distribution and the slightly altered emphasis of

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the investigation on the importance of gravity to electrostatic aspects of fundamental particles and not just the other way around as Julie and I had originally envisioned.”

Maria smiled. “I helped change that, didn’t I.”

Lisa interrupted with, “Wouldn’t you two like something to eat. There’s a lot of good stuff in the frig that I can’t eat. I’m mostly just on Ensure.”

“Don’t you think we should get back to help with the wedding plans Roger?”

“Yeah, I suppose. You going to be okay Lisa? We don’t have to go right now.”

“You two run along. Make that wedding everything the kids want. I’ll be fine. The doctors assure me that the chemo will take care of this little problem of mine, and I can handle a little unpleasantness. And thank you both for taking care of the unpleasantness with Ben.”

After having sat silently as they rounded a couple of corners on the way back to Tommy and Margie’s, Maria hesitantly asked, “Did you really mean what you told Ben?”

“Yeah.” After a bit he continued, “I guess there are a couple more secrets about my dad that apply also to me. As I understand it, there were two times in his life when he beat someone to within a hair’s breadth of death. Recovery was a long and painful ordeal in both cases as I understand it. I was not aware of either at the time it occurred. The first was before I was born – before Ellie’s mother was born – the date rapist who became Ellie’s biological father was left on his parent’s front steps as a pile of bloody meat as I came to understand it. The second occurred right after Ellie and I had left home to come to school here. He learned that Margie was not his genetic child because doctor Sharon had flaunted that fact of which both he and mom had been totally unaware. She had replaced a viable fetus of a natural child both my father and mother had dreamed of conceiving, which is what they had wanted for me as well as Margie. Sharon – of whom you may have heard from Margie and if not, maybe you should ask her – had played god with her genetic and medical expertise. She was beaten nearly to death by my father, saved only by my mother and aunt Julie who had stepped in front of the blows, both of them were severely injured in that process.

“Like I say, I was not there for either of those incidents and only heard about them long after all the evidence had been removed from the scenes, other than my having noticed facial scars and the broken nose in Jonesy’s coffin.” He hesitated here as though rather appalled

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at his father's and his own behavior. "And signs of the bruising on my mother and Julie long after the other event had occurred. But... I didn't have to see any of it; when I saw the women I loved being threatened, it just happened – to *me*, not Ray Bonn. I couldn't have done anything differently other than attack Ben the first moment I saw him at the door. The miracle is that I didn't kill him rather than holding those evil forces at bay within myself."

They were both silent then for longer than it would have taken to get to Tommy and Margie's home. Roger had pulled off the main drag to park on a side street in a residential area. It was Maria who spoke then:

"Don't let that happen to you Roger no matter what. I cannot live with the knowledge that if someone should ever accost me that we will be separated because you will be in prison or shot." She paused with Roger staring out over the steering wheel, and then went on, "I am still terrified Roger, not of being exposed as one of Edwards affairs, but that you will kill someone. That is the most terrifying thing I could ever have imagined; you convinced me as much as Ben that you would actually do it – that you would actually kill him. Don't, Roger!" She was sobbing now. "Just don't. You can't take the law into your own hands. That's the mafia. I know about the mafia, Roger. I've seen what it does – not to victims, but to the enforcers. Your father was a great man, Roger; I know that, but that behavior is reprehensible; it's evil. Promise me you will never behave like that again no matter what; that is not the man I fell in love with nor the man I can stay in love with; I am not a moll. I know it must take extreme restraint for extremely powerful people with strict morals like you and your father, but you must restrain those primal urges. You just have to Roger."

He sat thinking for a while, then sighing deeply, he uttered in a very low and contrite manner, "I will." Then he added, "for you. For you I can do anything."

They embraced and gradually pulled themselves together for proceeding back to assist in the joining of Tommy and Margie.

Back at the Tommy Bonn's house they found only Tommy scrounging for a late lunch.

"Where's Margie?" Maria asked.

"The doctor's again."

"Again? Is something wrong?"

"Oh no, she's just hung up on having a baby."

"You're not?" Roger asked.

"Oh, I wouldn't mind, but it's no big deal for me."

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“It doesn’t seem like anything is a very big deal for you Tommy. You just roll with the flow, huh?” Maria chided.

“Yep, that’s about it. If we have a baby, we have a baby, or else we don’t. Who needs high tech for that?” He laughed. “But what Margie wants, Margie gets, and that’s the way I like it. She’s got a friend at the clinic who’s into it.”

“Oh god,” Roger exclaimed.

“We still have to plan this wedding, don’t we?” Maria began a series of questions. “It’s still on for the day after tomorrow, isn’t it? Does she even have her dress? Wasn’t she going to schedule our honeymoon tour? When do you expect her back?”

“I don’t know what she wants to get married in; we’ve been married for a long time as far as I’m concerned, so what’s the big deal? I don’t know when she’ll get back; they were going to do some ‘procedure’, whatever that means. I don’t get involved in any of that day-to-day stuff.”

“‘Day-to-day’ stuff?” Roger broke into the conversation. “You’d tell us if there was anything the matter with her wouldn’t you.”

“There’s nothing wrong.” Tommy had a sandwich made and headed off to the family room to watch a sports channel. “She just wants a baby.”

“‘And that’s just fine with you,’” Maria mimicked.

“Yep.” Sports hype filled the room following a click; football was in full swing.

Roger looked over at Maria, she was shaking her head with a cute smile. “Shall we go into the other room and talk,” he queried.

“Yes, please.”

Stepping back into the kitchen, they proceeded through the outer doorway to the patio with the unseasonably warm weather. Roger asked, “Do you have any idea what might be going on with Margie?”

“I can only suspect IVF,” Maria replied, “But I don’t think I should air my speculation”

“What’s ‘IVF’, and why don’t you think you should tell me what you’re thinking?”

“In vitro fertilization, fertilization in a test tube and I don’t want to talk about it.”

They each silently lay back on their lawn chairs facing the pool. Finally Roger queried, “Why wouldn’t you want to talk about it?” He paused while waiting for an answer and then, “because it’s a woman thing and not a Bonn family secret thing?” He chuckled.

“I don’t know what it is, and I won’t be a party to speculating about either. Whatever happens just fucking happens, okay?”

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“Oh. Yeah, in a test tube,” he said as though it had now all been explained.

Once comfortably situated following the way too many, much too personal, Q’s without A’s, Maria ventured off on another tack. “You know, for all the bad time you gave Margie about her thesis, we have a major thesis to do, and Julie isn’t going to be able to do too awfully much with her added chores. Don’t you think we ought to get writing? I could make a start at it if you want.”

Roger agreed that it would be a good idea. They discussed the plan they had outlined with Julie, agreeing that it would make a good starting outline for what they needed to put together. They both agreed that the weak interactions would need more work to verify viability of the three-quark electron and the role of the neutrinos.

They each lay back then, relaxing with their eyes closed, the sun on their faces. Finally, Roger cautiously broached his continuing confusion concerning the specific ‘Bonn family secret thing’ to which Maria might have been referring with regard to Margie’s pregnancy obsession. “I can’t think of a Bonn family secret that I would be comfortable with that could possibly explain Margie’s behavior.”

“Can we just let it go.”

“No. If I can’t keep Bonn family secrets from you, you shouldn’t be able to keep them from me.”

“I just misspoke Roger. I meant it’s a ‘Margie thing’ – an aspect of her capricious behavior – a Margie-specific woman’s secret. It’s just a fertility issue – a new personal family secret that she would evidently like to keep from all of us and I for one hope that she keeps it a secret.”

“Oh,” was all he could say to that.

## 22 PREGNANT THOUGHTS

Next morning as Maria was just about to rise from bed, Margie entered – once again without warning.

“Did you purposely prohibit the contractor from putting a lock on that door?” Maria asked, chuckling a bit to cover otherwise apparent irritation.

“Yes. I don’t ever want anyone but friends staying here as guests. So how’d you sleep? Tommy and Roger are off doing what men do for a while I think.”

“Roger and I slept well together. So what do ‘men do’ when women aren’t around, and what do women do separately in their absence in this cozy world of ours? So far Roger and I have done everything together.”

“Lucky you. Time starts over every day for Tommy. The everyday monotony is exciting for him because it’s a brand-new day.” She laughed at her trivialized conception of Tommy’s world.

“Don’t you have discussions about what happened yesterday and what will happen tomorrow and next spring?”

“No. Not really. Tommy is in a *ménage à trois* with me and baseball and that’s just fine with me; that’s a world I understand; I’ll make it work for him. But discussions about yesterday and tomorrow are women things like shopping for this and that. Women talk to make the clock go ‘tick-tick’,” she laughed, “and once in a while ‘tock’ as in t-a-l-k, not t-o-c-k.”

“Okay.” Maria was laughing with her as she laid back on her pillow, deferring her earlier decision to get up and ready for the day. “Then t-a-l-k to me about your experience yesterday at the clinic.



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Tommy didn't seem to understand or care about what you were doing."

"Oh, he cares; it was fine. It just took a bit longer than I figured it would."

"Tommy told us that getting pregnant is a major priority – particularly for you. I would have thought your career that is just starting to blossom here in the Bay Area might take precedence for a while at least. You're both young."

"You are too, and Roger is not really over the hill I wouldn't think. So, what are your thoughts about children. We discussed it yesterday, but I didn't really get the impression that children were as important to you as they are to me. Or is it just that you and Roger and Julie have this ménage à trois thing going with physics that is suppressing biological urges. Having a baby is a very important process don't you think? Maybe even as important as gravity?"

"A 'process'? Oh, children are very important, and I do hope to have a child with Roger before too long. But why is it so immediate with you and Tommy?"

"Well..." Margie seemed deep in thought. Finally she said, "I know Roger told you the big Bonn secrets about he and I being unnatural offspring of two rather marvelous people who were madly in love and wanted nothing more than to procreate natural children with the usual process with all the improbabilities that happened to be Ray's hang up thrown in. They were romantic gamblers. 'Sure things' had to be disappointments to such gamblers."

"You both seem pretty natural to me no matter what you may know or think, and neither of you could have been a disappointment to anyone. I'm not very familiar with the cloning process, but I know it involves the nuclear DNA from only one parent, but doesn't the mitochondrial DNA derive exclusively from the mother? From what Roger has told me, you very closely resemble your mother. I must say that from the photos and videos I've seen, you resemble her much more than Roger resembles your father. Has that ever been raised as an objection to the claim of your having been adopted from unrelated biological parents? I know press coverage has not always been kind to the Bonns and I wonder whether that seminal fact has ever come up."

"No. Well, not that anyone has raised in my presence anyway. But yes, all of that has concerned me a lot. It was almost as though I should have become a physicist on that account."

"You rebelled on that at an early age I presume."

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“Yes, of course. It is *my* life. Lesa (I always called her Lesa since I never knew her) left me a letter which explained what happened to her dream. She elaborated that what she had wanted more than anything in her entire life was to have a child sired (if you will) by that stud Ray Bonn. She loved having him penetrate her and she wanted nothing more than Ray’s sperm to penetrate one of her eggs – that is *literally* what the letter said. It was her obsession is what she said. And Sharon, that evil ‘friend’, had deprived her of that joy. For that evil, Ray attempted to kill Sharon and very nearly did, would have had the two women he loved not taken too many of his blows in stopping him. He was even tempered by all accounts, but if you did something so bad that it made him mad, you died – that sort of thing.” Maria physically shivered.

But Margie continued: “So yes, that frustrated joy is something I want to bring to fruition in my life.”

“I don’t understand. You mean you share that obsession of merging that aspect of Ray Bonn’s genes with your mother’s (Lesa’s, that you pronounce with a shorter ‘e’) genetic background?”

“Yes, I do. It’s my genetic background too. Julie Davidson, who was by all intents and purposes my mother growing up, told me about the incident that brought about my parent’s deaths. She told me as soon as she thought I could handle it and keep it as a sacred secret. So I knew all about that long before Roger and Ellie had told Tommy. Some of which they had probably never learned because they were away at school. When I told Tommy, I told him that he couldn’t even let his parents know that we knew we would have to end up together.”

“Have to? But you couldn’t unless the adoption story had come out first. Did you know about that; did you have some role in its dissemination, or did you have other contingency plans?”

“Julie knew; she had clandestinely contacted Sharon since, as my surrogate mother she felt that she had a right to know some of the details of the story Sharon had put in place.”

“And you bought into the adoption fabrication while you were still a child – to make someone else’s dream come true?” Maria paused briefly. “But you didn’t even know Lesa or Ray.”

“Yes, of course, but the dream is mine too – two dreams in one – that is who I am, a recursive dream.”

“Does Tommy see the significance that you place on it, and does he share that same commitment?”

“Not really, but he loves me very much and he wants all my dreams to come true.” She laughed. “He is so easy to be around; I just love him.”

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“I had thought your dream was to make a major statement in anthropology that would change everyone’s perception of who we are as a species. That’s what your thesis seems to be about.”

“Yes, I can do that too. What happened to my parents is characteristic of the genocide of anthropological dreams.”

“No.” Maria laughed, knowing she probably shouldn’t have. “Disruption of one, however special breeding pair does *not* constitute death of an anthropological group.”

“Dream,” Margie corrected Maria’s statement. “And laugh if you must. I’ve just confided the truth to you.” She got up suddenly from sitting on the side of the bed and strode out of the room. “The boys will be back before long. Breakfast will be ready soon.”

“Oh God,” Maria thought, realizing how she infringed upon one of Roger’s trademarked remarks. “The Bonns really are a rare breed,” was the very next conscious thought to cross her frontal lobe; it violated no fair-use laws.

Breakfast conversation was cheerful, centering around some out-of-shape person at the club staggering around after trying to keep up with Tommy and Roger. Then Margie went directly into the wedding plan, which involved basically Roger giving Margie to Tommy, the ‘I do’s, followed by a lengthy kiss. Simply put, that was it, all there was to it.

“Do you have a dress?” Maria asked.

“Duh. I’m not going in there naked.” They all laughed.

“So... what dress?”

“Does it matter?” Margie countered. “I’ll go naked if you all want me to.” More laughter. Maria entered in, but clearly had missed the spirit.

“Wedding vows? Are you writing your own or going with ‘love, honor and obey’?”

“Indeed!” Margie laughed. “Till death do us part.”

“Aren’t you maybe placing more emphasis on getting pregnant than on getting married?” Maria asked meekly.

“They are one and the same thing. And you Bro need to get busy so our kids can play together.”

“Only child twins?” Roger asked dubiously. “Should I book an appointment with your doctor or is she all booked up?”

“Only child twins!” They all raised their juice glasses – Maria lagging behind the others.

Meekly Maria interjected, “I think there is more to marriage than getting pregnant.” But the comment’s use-by date had passed; they

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had already begun picking up their dishes and may not even have heard what she had said.

“I suppose the Roger Bonns are off to their business with Julie,” Margie said.

And, indeed they were.

When they arrived at Julie’s office one of the regents was just leaving. Julie dismissed her visitor, who nodded deferentially to Maria and Roger as he turned and left.

“Dean stuff?” Roger asked.

“Yes, but it’s getting better. Evidently Ben has decided to ratchet it down a bit. He insists now that he’d be happy to just be left on the staff with no other responsibilities than teaching and his research.”

“Yeah, good. All’s well that ends well then, right?”

Maria had rolled her eyes for only Roger to see as he said it.

“So, what was the emergency yesterday,” Julie asked. “Is Lesa going to be okay?”

“She seemed nauseated and quite exhausted so I thought I might need Roger to help us get her to the clinic, but the problem seemed to pass. She got much better after Roger got there. Sorry about that.”

“Better safe than sorry, if one cliché is not one too many,” Julie said. “It was just as well, because it wasn’t too long after you left, Roger that the president called. He was talking with Ben. So I had to join them to discuss possibilities. It was a different Ben, let me tell you. We’ve been gathering opinions on the options ever since then. We have a meeting coming up right away with all the biggies and lawyers to decide whether to give Ben the lesser position he’s asking for with written assurances to leave the school out of his personal life and his personal life out of the school. So I don’t know exactly what will come down, but whatever it is it will be orders of magnitude better than what I anticipated yesterday.”

So that freed up the rest of the afternoon for Maria and Roger, which would allow some time for Maria to do some thinking about the upcoming wedding. The wedding would be grander than Margie had planned largely due to Maria’s creativeness. In part because, as they were leaving the upper hallway, they encountered a TA who had previously done some reviewing for Maria. Maria chatted with her with Roger sidelining himself checking out familiar images and name plates on the walls of this floor. They were just about to the hand shaking and hugging phase of departure when Maria interjected, “Oh,

by the way, didn't you tell me at some point in the past that you had once performed a wedding ceremony for someone?"

"Yes, I've been ordained to officiate; I have done several weddings. I would have liked to have done yours by the way, but of course that's already done."

"Well." Maria proceeded enthusiastically, "That would have been so nice. We just walked in and got a license, filed it, and went home to celebrate. Do you happen to be available Saturday, it might be nice if you could officiate at Roger's son's and adopted sister's wedding this weekend at their home instead of whatever less comfortable justice of the peace they might have arranged."

"I'd love to. That would be awesome."

"Well, it should be none of my business, but I think the wedding should be a little more fun than they might have planned, but I would have to verify that it works. Do you still have the same number?" She received the nod. "Good. I'll call or text you later today to let you know if we have a plan. It's really been nice meeting up with you again," and the parties proceeded in opposite directions.

"You didn't even introduce me," Roger said as they continued down the upstairs hallway away from Julie's office.

"Roger, everyone knows you; they know us; it's news media stuff that doesn't require a footnote."

"I don't know her; was she on the news?" he retorted. "Did I miss the special?"

"No. Of course not."

"A footnote in a book I should have read?"

They walked on and down the stairs but then after a few more steps in gravel crunching silence: "Okay, okay, I'm sorry. That wasn't right. I'll do it properly before the wedding," she whispered the apology because the regent who had been at Julie's office was passing them as he returned. She squeezed Roger's hand.

Their encounter with Julie having been cut short by Julie's required attendance at the emergency meeting of the department, Maria phoned Margie. Margie liked the idea of the home wedding with Maria's friend officiating. It seemed strange to Roger, what with Margie's well-known 'control freak' propensities that she would acquiesce so easily on something so personal and significant. Another aspect of women he didn't understand he guessed. But Margie did want them all to get together this evening to discuss the 'process', not letting it get too out of control, Roger concluded.

With the evening arranged with the additional participants, Margie and Maria headed off to town to do some shopping. That left Roger

and Tommy hanging out watching some old baseball videos, laughing, and just having fun.

Dining out later with Maria's friend Leanne and accompaniment to whom Roger was properly introduced with a formally introduction to everyone as Maria assumed appropriate to her earlier lapse. Of course that was uncomfortable in its own rite, but another sign of the stability of their relationship.

Together the women planned a ceremony that would involve the remarriage, if you will, of Roger and Maria as well as the intentioned couple. So nearly four decades after Ray Bonn and Lesa Sorensen had sealed their seemingly inimitable relationship, their respective clones, if you will, sealed theirs, although separately if at the same time. It was a momentous occasion with a joyous celebration by all the participants, including, most surprisingly, the somewhat cynical Roger Bonn.

As it turned out Leanne had friends, one who did the photos and video and was not above making a profit on the free service on the free market, another catered a modest feast on short notice, and Leanne's husband Jameson was a classical pianist who moonlighted the affair. Jameson had personality as well that accommodated the Bonn men's tastes in banter and baseball.

Behind the scenes, both before and after the ceremony, a fecund sexuality seemed to have overtaken the two couples as though flood gates had been opened even though there had been no prohibitions before. A fuller account would have been appropriate for Margie's thesis Maria thought but resisted any such comment. Their joint honeymoon that began as a tour de force of the western ski slopes was transmogrified to the prolonged exploration of smooth contours of flesh at room temperatures. They continued with their travel plans primarily only for the enjoyment of different rooms in different inns with different views of snowy slopes. They ventured out onto the snow only very occasionally. Mostly they fully enjoyed their newly professed relationships within heated rooms. They shared delight in the various restaurants where they refreshed their energies, laughing along with other occupants who considered themselves very special to be a part of such celebrity.

Finally, after *doing* Mount Baker they continued their exuberant enjoyment at the Canyon Creek lake house overlooking the waters that covered the previous habitat of a generation of Bonns. It was here that both women, knowing they had missed a cycle during their tour de force did their pregnancy tests and the four rejoiced in the news of

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their joint accomplishments. The couples had become as close as friends get, a unit unto themselves.

It was a long while, including jointly celebrated holidays, before Margie and Tommy headed south and by then it was nearly time for spring training to begin for Tommy at Old Town Scottsdale where Tommy and Margie set up temporary residence.

Within a few days – and it did take a few days of malaise – they had finally laughed off what Margie referred to as their joint acedious behavior. Roger and Maria began once again to work on their intellectual challenges with regard to gravity and its associations. This began with a call to Julie that, because of the lapse, required a lengthy dialogue. Julie’s role was no longer ‘interim’ dean of the department. She informed them that it was now the full Monty, and as unlikely as it would have seemed a few short months ago, she was loving it.

“I don’t think the job has ever been done better,” she laughed, “and the regents tell me the same thing so I’m the center of a positive feedback loop.” She paused to laugh out loud for their enjoyment. “But quite honestly, I haven’t spent any time on our joint effort. I’ve just been way too busy.”

In addition to expressing their joy for her, they informed her of their coming joy and that they were themselves just now turning their attention to that joint effort. Admittedly events had overtaken all parties and progress would be slow, but they were enthused to pursue the physics nonetheless.

Maria and Margie communicated regularly on the status of their pregnancies and life in the environments surrounding the ‘central facts of the universe residing in their tummies’ as they increasingly referred to everything going on in and around them. Excitement of a coming arrival was more short-lived for Roger as it must have been for Tommy. He was anxious to get on with the rest of their lives, however peripheral that might be. Roger slogged on trying to figure out how all the pieces of this universal puzzle fit together with Maria interacting less often and a little less enthusiastically than he was used to her participation. She had become the motivation of the activity and now that energy was being syphoned off on designing the ideal nursery and regular checkups, ultrasounds, etc. Roger was happy to learn that their anticipated bundle of joy would be a girl, but other than a background of contentedness, that also dissipated into something other than excitement. He called Julie occasionally to get re-energized and that too was a disappointment. She was often in a meeting and

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might not return his call until the next day when it was kept brief on account of her busy schedule. Sometimes the phone call was hijacked in the interest of baby updates.

In Arizona, Tommy excelled. It was announced that he would be placed in the Giants' starting rotation. When the season finally started, he was sensational. In addition to a phenomenally low ERA (earned run average) he was scoring as well, with batting and slugging averages up there with the best in the league. Roger, who had never taken vicarious interest in sports, became an avid fan, watching every game when Tommy started and many of those where he didn't, hoping to see him in a pinch-hitting role. So Roger found himself having fun as he had never enjoyed it before. It was a new way of being for him, and often Maria would sit down beside him to watch the games, looking to see whether they showed Margie in the stands watching the game and noticing with whom she was watching it. Sometimes they would facetime after the games and on Tommy's days off. Roger and Maria even flew down to San Francisco to spend a few days with 'the kids', going to games with Lisa as company. Lisa had recovered from her bout with cancer, her doctor celebrating that she was in remission. Julie accompanied them once and seemed to totally enjoy getting away from the duties she claimed to enjoy so well. All in all Roger came to the realization that this was the most relaxed and enjoyable time of his life but, he dared to admit, the least meaningful.

When the voting started for the Allstar game Roger and Maria voted multiple times unnecessarily as Tommy was a shoo in for the honor; he already had ten wins to his credit, several complete games and a shutout. He also had four home runs and a creditable batting average

Tommy had had a fantastic first half of the season and was chosen as the starting pitcher in the Allstar game for the National league. It was held in San Francisco this year which pleased all of the immediate and associated Bonn tribe since sleep in familiar surroundings made attendance by the principal ladies less risky. It was mid-July; both babies were due.

Roger and Tommy watched the home run derby with some interest, laughing joyously as the field narrowed. And then it was the day of the game. Margie, Maria and Roger were all hyped when Tommy came down to breakfast, still sleepy. "Did you sleep alright?" they asked in unison.

"Like a baby." He responded. "Never slept better in my life."

Their breakfast was fun with no tension whatsoever; one could not have told that Tommy was stepping out on the biggest stage of his life.



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Those who knew and loved him best were not in the least nervous about anything that might befall Tommy to keep him from the stardom he had already achieved. They waved him off and before long proceeded themselves to pick up Lisa and Julie who met them at Julie's. They were early so that the cameras located them from the start of the national broadcast, integrating them into the coverage of the event. They discussed Ray's achievements of so long ago now and Roger's of more recent memory. And they covered the tragedies that had seemed to accompany the Bonn family. The irregular romances of three generations and the pregnancy status of Margie and Maria. They explained also the intricacies of how the other two ladies were related to the principals. Obviously, in addition to the other starters they focused on Tommy's outstanding achievements at mid-season. Then the National Anthem and the inimitable 'play ball!'

Tommy had shut out the American League all-stars in the first inning and had gotten two quick outs in the second inning which would surely be his last, when Thomas Mancini, who was having a phenomenal year with 25 home runs in the American League already, came to the plate. Tommy had become a master at keeping batters from hitting the ball in the air. On the first pitch to Thomas, Tommy threw a one hundred and one mile an hour fastball to the outside of the plate. Mancini hit it hard up the middle – right at Tommy. It hit him just above the cheek bone on the right side of his face, smashing into his temple. It would have been hard to imagine surviving such a blow. Ultimately, he wouldn't. An ambulance was on the field within a minute, EMT's busy attempting to save him but to no avail.

But that was only the beginning of a cascade of calamitous events. At the instant the ball had struck Tommy and the loud gasp arose as though the arena was a single gaping mouth but before the ensuing silence, Margie had bounded up with hands to her face terrified. She tripped on the stair out of their box and tumbled all the way down the complete flight headfirst. Her crumpled and bleeding body lay lifeless at the bottom; she was unconscious. Everyone around them screamed and kept screaming even as ushers filed in and another crew of EMT's crowded into the stairwell.

Roger and Maria were both remonstrating that her baby was at risk as well as Margie. It was amazingly quickly that they had her on a stretcher and were heading into the opening onto the concourse at that level. Maria and Roger ran along beside them and into the ambulance. Security forced the crowds of onlookers away. Once in the crowded

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ambulance Roger could tell from the activities of the EMTs that Margie had died. His mind shifted gears quickly.

“Her baby!” he yelled. “Save the baby.”

Maria was still down bending over Margie, speaking to her even though she too realized Margie was probably gone. She jerked her head around when she heard Roger’s exclamation. “Roger!” she said, sobbing. “Roger, Margie’s gone.”

“I know,” was all he could say, putting his arm around Maria to help her rise to a standing position where they embraced tearfully, swaying until they sat back down at the insistence of an EMT worker when the ambulance swerved as it rushed along, its siren blaring.

Upon arrival at the emergency entry to the hospital, activities intensified; the ambulance staff wheeled Margie out into emergency care. Doctors immediately surrounded her and rushed her into surgery. Convinced that they were concentrating on saving the baby, after a few moments of standing awkwardly Roger inquired at the main desk about Tommy. They pointed him to the ICU where Roger rushed, leaving Maria in a waiting room. A doctor came out to explain that Tommy was in extremely critical condition; they were afraid he probably could not survive the surgery that had to be done to afford him any chance of survival at all. The ball had shattered his skull and forced bone fragments and associated profuse bleeding into vital areas of the right side of his brain. They would keep Roger apprised of the situation.

He returned to the waiting room to wait with Maria. Lisa had arrived with her calming influence.

“How did you get here so soon?”

“You tossed me the keys when you went off with the EMTs,” Lisa said. “I didn’t catch them by the way, but I scrambled around, and someone helped me find them.”

“You are heroic,” Maria noted nervously. All these comments might have been humorous or cute at any other time, but no one did more than smile sympathetically.

Then after Roger sat down emotionally exhausted and relayed the dire news about Tommy’s condition, he asked whether they had heard any information yet about Margie or her baby. No, they hadn’t, but shortly a doctor entered to inform them that the baby had been saved and she seemed completely healthy. She!

Maria was sobbing with Lisa comforting her and then suddenly another major difficulty presented itself. Maria began moaning in pain; her contractions had not only begun but were continual.

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“Oh God,” Roger muttered as he rushed to the receptionist for assistance with this new crisis. The same doctor who had announced Margie and Tommy’s baby came rushing along with nurses and a wheelchair just as Maria’s water broke. She was whisked away and down the hall to a ‘birthing suite’ in the maternity section with Roger holding her hand through the entire trip. What might usually have been a lower intensity chat during such a process to relax the expectant mother was instead a horrified silence with intermittent painful comment during each intensified contraction.

‘Only child twins’, ‘only child twins’, ‘only child twins’ – reverberated like drumbeats between his temples.”

Indeed, two baby girls were born this day.

How does a story like this end? If this were a novel, the author would not know. These things happen; they are not written in DNA or in some plan laid out by an omniscient being, but they happen. It is not as if an author without empathy for his fictional characters comes to a place like this and forgets his plan. There is no plan for things like this. They happen and when they do, any possible plan is destroyed as an integral part of the disaster. The appropriate question becomes, not how does this story end, but rather how can this story continue? It is like a mathematical function of  $r$  with a singularity at location  $r_0$ . The function makes sense right up to where one gets to  $r_0$  from any direction. It’s even okay at an interval away from  $r_0$ , however small; the function makes sense everywhere but  $r_0$ . But at  $r_0$  it makes no sense at all; it cannot be fathomed. The pencil or stylus can go no further. But the function still exists on the other side of  $r_0$  – if one is even interested in the function beyond that point any longer... if one could somehow get there.

## 23 GETTING PAST ANOTHER SINGULARITY

Despite its usual cataclysmic interruptions, life does go on after swerving out of its normal course. Well... for those for whom the bell has not yet tolled... life goes on and sadly we are they for whom it does. Not immediately, but after a lapse of time.

Lily and Eileen thrived as the newest generation of only child twins – more as sisters than any sisters ever had. Their parents thrived as well, although very differently than they had thrived before. Now, years past when other things had ceased to matter, the girls had begun school just yesterday. Routines would change in a somewhat less dramatic sense, but changes would accrue. Although the dedication of Maria and Roger’s lives to the well-being and education of their girls was now immutable, still with their absence during designated hours in school, an adjustment would be inevitable.

Roger sat looking out over the reservoir, merely staring without immediate comprehension.

“Julie retires today, remember?” It was Maria breaking the silence.

“Yeah. Yeah, I do recall that she was. Today huh?”

“Yes. I just heard from her; she’s sold her condo.”

After too long, Roger responded. “What’s she going to do?”

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“She’s coming up to visit.”

“Oh. When.”

“Right away. She wants to check out those new condos north of town.”

“That huge monstrosity overlooking the reservoir?”

“I wish you’d call it a lake like everyone else; that dam went in long before you were born. And they’re condominiums. But yes, she’s going to check them out.”

“Why?”

“She likes us; we’re friends; we used to be close.”

“Aren’t we close now? She shows up for vacations every year.”

“Yes, I know – most years. We are still close, but don’t you remember how we used to get so excited about merging electrostatics and gravitation and arguing about your three-down-quark electron.”

“Nobody cares about any of that now.”

“No one ever cared about it but us, but that’s the point – we did.”

“Yeah. Well... we never addressed the  $q$  factor.”

“The ‘ $q$  factor’? Do you remember our last discussion on that topic?”

“No. We never discussed the  $q$  factor. Anyway, it’s over.”

“Julie misses it. Being Dean had never been what she had wanted of her career. She’d like to see whether we can get it going again. What’s with you and the  $q$  factor anyway? We addressed the higher level; we avoided spin initially.”

Roger continued staring out across the reservoir but thinking now. “Well maybe it can’t be addressed top down. We assumed spherical symmetry; spin isn’t spherically symmetric.”

“You’ve given up. Is that it? Do you remember our last discussion all those years ago now concerning the relationship between variances of the gravitational and electric charge distributions?”

“Yeah. Whether or not the gravitational variance was down at the Planck distance or the same as the electrostatic variance at the nuclear level.”

“You said there had to be a logical reason for all aspects of physical laws so I told you that you would have to come up with the logical rationale for one or the other.”

He chuckled cynically. “Yeah. I remember that but some things don’t make sense.”

“Well, do you remember my contribution to that discussion?”

“Yeah. You suggested that there was no apparent reason why it couldn’t be an intermediate value just less than the electrostatic variance.”

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“Yes. I’ve thought about that some off and on.”

“Have you?” He paused. “Was that while you were changing diapers or later while you were teaching the girls Italian?”

Ignoring his off-topic distraction, she answered, “No. More recently – in interacting with Julie on why she is so anxious to not be dean anymore.”

“Does the physics we were working on really matter to you... or her?”

“Yes, of course it does Roger. Doesn’t it matter to you.”

“No. Not like it did. I played baseball till I was tired of it and then I started getting into physics again, and then... well, with Tommy doing so well I started getting interested in baseball again... and then... life stopped... and has barely started up again all these years later.”

“Ellie, Margie, and Tommy died,” she blurted out angrily and then she sat and watched him for a few moments. “We have to learn how to say it, Roger.”

He turned his stare from out over the reservoir to lock onto her eyes.

“All those awful things actually happened Roger and we have to quit covering them with ellipses. They have names Roger: Your parents, Julie Davidson, Ellie, Jamie, Judy, Tommy, Margie, Lisa... the list will never stop Roger. It didn’t start there, and it won’t stop here.” She halted abruptly then, teary-eyed. “And would you please call it a lake Roger? Just for me! It’s a lake, okay.”

“Yeah, okay. I can do that much.”

“I want more than that. You don’t write obituaries for a living and you’re not a ballplayer either; you just hit home runs for a living for a while. Okay? You’re a physicist. I’m a physicist. We don’t have to say we *were* physicists, Roger,” she virtually screamed. “We are *fucking* physicists, okay? *Not* historians – we don’t write obituaries and no more morbid memories – not anymore. We have two happy girls, and we need to be happy for – and with – them. Okay? Now we go back to what we know how to do – what we did. Julie will help us do that – to get us over it and restarted. Okay?”

“Yeah, okay. I guess that’s a pretty good description of who we are and aren’t.” He grinned like he hadn’t in way too long, moved by her passion. “So I guess we should reestablish whether we are indeed physicists before we start defining what kind of physicists we are since the girls will be home before long and we don’t use the f-word around them.”

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“Yes,” she said, smiling now as well. “So what’s the logical relationship between the variances of electrostatic and gravitational distributions? That’s what I’m asking.”

“It was your idea with which I happened to agree, so I guess the gravitational variance would have to be sufficiently small to lock two identical distributions from fragmentation but not so small that it locks disparate distributions so tightly that it precludes any further necessary recombination.”

“Roger, I love you.”

“Good. Maybe that’s a better adjective. Maybe we could just be ‘loving’ physicists. Would that work?”

“It works great.” She sort of smirked at him then. “So, you did think about it some during these busy years between diapers, didn’t you? You thought about how your cute little-u up and little-d down quark could adhere until a second down quark joined the mix to form a ‘d-u-d’ neutron, didn’t you?”

“Yeah, I guess I must have. Are you wanting to secure our position before Julie gets here so we can stick together – adhere, I guess we could call it – when the other ‘d’ gets here.”

“No. I’m not worried about Julie as a ‘d’. I just thought it would be nice if we could familiarize ourselves with what we had going before. I found those old files in our database the other day. It was fun looking at them. Come over here and look at this figure we discussed last time we talked with Julie.”

Roger came over and pulled up a stool to sit next to her at the drawing table. As he inspected the diagram of the electrostatic and alternative gravitational forces on log scales, Maria pointed to where their second alternative would have to be modified to produce the overlapping of force curves. “It doesn’t have to be very much,” she said. Maybe if the gravitational potential is added to the electrostatic self-energy, that might be enough ... without even modifying that alternative.” She paused and then appended, “Maybe that’s the logical reason for combining electricity and gravitation.” Laughing now, she said “Isn’t that so Professor Pangloss?”

“You make everything make sense for me...” he laughed with her but added cynically, “in this best of all possible worlds.”

“Well... thinking about this stuff again, there’s something that doesn’t make sense to me.”

“Oh yeah, what?”

“We were thinking that electric and gravitational charge could be added directly, right?”

“Yeah. I think that’s where we were at.”

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“Well... potential is not energy without multiplying it times a charge, whether a unit test or an actual charge. The same goes for the field strength; it's not a force until it's multiplied times a charge.”

“Oh,” he uttered and paused. “Yeah. So what about the cross products in those constructs? Is that what you're wondering about?”

“Yes. We never addressed them, and I don't see a role for them. So, I'm thinking that it must require the product of a charge and its complex conjugate and not just the square. Right?”

“Yeah. You're right, a complex value. So which one is imaginary, and which one is real?” He paused. “Oh, I guess the lesser must be imaginary, so the gravitational charge.”

“Let's look at that effect for a down quark,” she responded as she opened a plotting window and put in the programmed formulations for the self-energy of a down quark. “There. Look at that.”

“Yeah, The button on the Lego, right?”

“Right. The latching logic behind the indivisibility of fundamental particles.”

Seeming appropriately elated, but still withdrawn, he paused long enough that Maria looked over at him as he stared across the lake and then he said, “Did you ever think about dropping the spherical constraint on the Poisson equation? And can a fixed distribution be rotating without effect? It would have a magnetic dipole, right? Spin. But would that change the distribution?”

Maria had started to remonstrate when the girls came running in all excited and out talking each other about the fun they had had at their first day of school. Lilly teased Eileen about a boyfriend with Eileen retaliating, “You missed that easy word in the spelling bee.” The family was the entire world again engulfing its separate parts, subsuming all its necessary accoutrements including the born-again physicists.

It was still light out as Roger kissed Lily and Eileen good night. Maria had put them to bed only shortly before, their propellant having run out; they were already fast asleep. It was a beautiful evening as he looked out at the distant hills and mountain reflected by the water, so he stepped out the back door and on through the water gate of their enclosed yard that opened onto the path that continued many miles on up along the rim of Lake Cascadia. It had just become Lake Cascadia for him as it had been for everyone else for years. The name gave it a different reality for him this evening; ‘reservoir’ has a completely different meaning, a different feel. He passed some strollers giving the nod of the head and flick of the finger as he proceeded north,



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thinking as he strolled of all his life had been, had become, and was becoming. These were not melancholy thoughts about the world line he crept along through spacetime that had been delineated by events, many sad, some joyous, all of them the meaning of what it is to still proceed through time. Alive, with intersecting world lines aimed into the future, two brilliant girls whose unlimited potential was all ahead of them.

His thoughts reverted like the music from a scratched phonograph record from long before Roger was born but which he had heard about. They involved hospital sounds of when those two girls had been born minutes apart, one normally (if anything about that situation could have been considered normal), the other ripped from her dead mother – his much younger sister (if that was what she had been), married to his and Ellie’s son Tommy. Roger felt himself twitch but bore onward. He had been there as one came through the birth canal, amazed by the entire process and at the long black hair on the infant. After things seemed stabilized in that delivery room, Roger had gone back out to the waiting room to where Lisa was holding a swaddled baby girl with virtually no hair except pale wisps; a nurse and Julie had looked on. He had sat down on one of the soft chairs in the waiting room and Julie had come over and placed her arm around his shoulder.

His thoughts would proceed no further down that path. He walked on, jogging by when he approached others on the trail. After another half mile or so, his mind became unstuck. It was with memories of Lisa returning with them to Canyon Creek. She had stayed on, helping with the babies until her cancer had returned and she had had to get back to the Bay area for doctoring, her daughter Elizabeth coming to care for her until her death. It was another huge hole in their lives, the girls learning to feel the sting of death firsthand. He had stopped walking now and stepped off the trail looking across the narrower part of the lake – the ‘lake’. Yeah... it’s a lake.

A lady he had seen at meetings dealing with the school curriculum spoke to him as he was standing there unaware of his immediate surroundings.

“It’s pretty on evenings like this, isn’t it?”

“Oh, hi. Yeah, it is.” He fell into step walking with her back toward home.

You and Maria did a good thing getting this school thing going. We needed a top-class school up here. The credentials of the principal and every one of the teachers is amazing – especially for way up here in the sticks.” She laughed at her willingness to deprecate their community.

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“Maria put a lot of work into it over the last few years; I haven’t done much. It’s nice that the facilities were all ready when the usual school year started.”

“I know you had to have put a lot of money into that effort as well or it wouldn’t have happened.”

“I can imagine no better use for money, can you?”

“Certainly not. By the way, Johnny is infatuated with Eileen. He could talk of nothing else till he was fast asleep.”

“The girls were pretty hyped when they got home as well. It’s a good situation.”

“It is,” she said. “But this is where I end it, the yellow house. I’m Jeanie by the way – Jeanie Wilson.”

“Glad to have met in person. Robert seems to have done a fine job working the legal problems for the school development.”

“He thinks so. It mattered to him more than anything else he was ever involved with, I think. I’ll let you get on down the lane; it’s getting dark. Good night.” She disappeared behind the Wilson’s gate.

Maria was finishing cleaning up as he entered.”

“Did you jog or just walk?”

“Mostly just walked but coming back I jogged most of the way with Jeanie Wilson. She said Johnny was gaga for Eileen.” He laughed.

“Yes,” she joined the laughter. “Lilly said they were absolutely disgusting.”

“It sounds like everyone is happy with your effort on the school.”

“You too,” she responded.

“I’ve been mostly missing in action, I think. I know that effort’s been going on for a long time and I don’t remember even being involved. I did make a point of realizing how beautiful the lake is though. So maybe I’m getting back.”

“The lake, huh? Good.”

“Yep, the beautiful lake,” he repeated as he put his arms around her. “It’s a lake; I just discovered it and this woman in my arms that I seem to remember from somewhere long ago.”

“Jeanie must have helped you then.”

“What? What’s that supposed to mean?”

“You didn’t recall that she was a trained therapist.”

“No.”

“Well, she is. Maybe you should meet her more formally.”

“Do you think I’m mentally ill or something?”

“Something.” Maria hesitated a few seconds before continuing, “I saw her off and on for a couple of years.”

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“You did? Formally?”

“Yes. It shouldn’t be something to be ashamed of do you think? You do realize that we lived through severe PTSD more than once.”

“What do you mean? That term applies to soldiers after a war. Why didn’t you tell me you were in therapy?”

“We’re soldiers Roger; it was worse than war. Conversations with Jeanie as my therapist helped me a lot. I didn’t tell you because I didn’t think you were ready and might think it was silly of me. I think maybe it would help you now to get some perspective on those issues.”

“Perspective? How does one get perspective on things like that – that just seem to keep happening – to me... to us? I have a pretty good vantage point to get a proper perspective.”

“Those things won’t ever change no matter how you look at them, but life going forward can.”

“Like... you think we need marriage counseling?”

“No, of course not. Are you aware of anything amiss in our relationship?”

“No. But I wasn’t with Ellie either.”

“Well I am more in love with you every day and it started out at an extremely high level,” she laughed. “So that’s not the problem from my perspective. But I don’t think either of us has ever gotten over that disaster at the Allstar game even though the girls have brought us a lot of joy. We had to pretend for so long that we just covered it over. I know I did.”

“I think time is the only thing that fixes things.”

“It helps, but it doesn’t get to the heart of the problem if it’s been covered over and ignored. You need someone beside your spouse to analyze your responses for you. It doesn’t have to be Jeanie; she could help you find someone with whom you’d be comfortable – a man if that matters to you.”

“Well, maybe I’ll meet up with her on the trail sometime again and see how the conversation goes. But I’ve made a little progress on my own in acknowledging that it’s a fucking lake, don’t you think? How about going to bed early?”

“Oh, Roger.” She rushed over to hug and kiss him. “It’s been so long since it was just you and I and evolutionary urges. I so want to go to bed with you.”

And so happiness began again like a trickle from a clogged pipe.

That next evening when Roger was on his usual jog, he encountered Jeanie Wilson again. It was shortly after passing her gate on the outward leg of his trek. She had made a point of catching him

and synchronizing her speed with his to facilitate conversation. At a certain point Roger mentioned that Maria had reminded him of the fact that she was a prominent therapist.

“Well, yes, I am a therapist,” she said. “I hope she mentioned it in a favorable context. I have really enjoyed getting to know Maria.”

“Oh yes. I guess it’s no breach of ethics to tell you that she said she had really enjoyed her sessions in your care and that it had helped her come to terms with all that has happened and recommended the same for me.”

Jeanie didn’t speak for quite a few steps until finally she queried, “And you said...?”

“Oh, I don’t know,” he responded, and then looking over at her, appended, “something like ‘I thought time was what healed everything’.”

Seeming to think about that response for a little while, she asked, “You’re not religious, are you?”

“No.”

“I didn’t think you would be. Then you’ve probably not read the Book of Job.”

“No, but I’ve gathered it’s about patience and I’m not blessed with a lot of that.”

“Hmm. I don’t have a lot of patients either.” She laughed as she added, “maybe I’m too expensive.”

Shortly she reached over to tug at his sweatshirt, requesting that they stop at the bench just a few steps further on. When they had both been seated, she proceeded with, “Well, although I haven’t had the pleasure of knowing you personally, it has been my impression that you might be as close as I’ll ever come to meeting Job in the flesh. The good news is that after all the ordeals he had to endure for no fault of his own – just God playing games – Job ended more blessed than at any earlier point in his life.” She hesitated before adding, “If I were a fortune teller instead of a shrink, that would be my prophesy for you.”

“Thank you for that thought, but no...” he breathed in as though to begin a remonstrance, but she put her index and second finger to his lips to stop him.

“Therapists, like medical doctors, have to worry about ethical concerns and because of that I could never treat you professionally.”

Surprised, he asked, “Because you treated Maria or because you have already treated me?” He chuckled as he asked it.

“No, that would not be a concern with both of you being aware and consenting. It is rather that I would have to recuse myself from that role on several accounts like a juror who has been compromised. I

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probably shouldn't have treated Maria either. No aspect of why I should recuse myself is ethically suspect by the way, but all of them are totally embarrassing to tell you the truth. Can we just be close friends like I am with Maria instead – friends with two-way communication? I would really like that.”

“Yeah, okay. I would like that too – better, in fact.”

They rose and jogged on faster than before which precluded conversation. And although Roger met her often on his jogs and they conversed freely about all the mundane aspects of their lives, the subject of her seeming to require recusal did not come up until sometime later.

Julie's arrival was an infusion of life-giving intellectual fluid like an IV to a struggling patient. Just knowing that her enthusiasm was likely here to stay rather than a time limited hiatus from drudgery during a vacation gave permanence to the life-giving substance. She bubbled and emoted about life, liberty, and intellectual freedom, causing Lily and Eileen to bubble with her.

“Julie, you were the warden not an inmate in that institution,” Roger teased only to be given the Eeyore treatment.

“Money, money, money – I had to always be in pursuit of grants for research I only halfheartedly supported. I am so glad to be free.”

Julie became an integral part of their family life after she had purchased her condo in the high rise so close to their place. Roger jogged by it virtually every evening. Sometimes Maria and the girls joined in, and often Julie would either take this occasion to jog back to her condo or she would join them if she saw them going by. Sometimes Jeanie, but never Robert, would join in pairing up with any one of them to reduce the width of the pack of joggers. If Julie had stayed over late working with them on their physics challenges, Roger would walk with her back to the condo and then jog back.

The physics did get restarted, but not all of a sudden, more as a back burner aspect of their lives that the girls actually participated in with questions that allowed for all of them to refresh their previous conclusions and invigorate their interest in proceeding. It became more of a natural backdrop of their lives than an urgent need.

Julie was still reticent with regard to Roger's preoccupation with a three-down-quark electron. She insisted on addressing the Pauli-Dirac equation and introduced discussion of the sigma matrix with regard to the real and imaginary combination of electrostatic and gravitational charge. These were all infusions of energy into their lapsed endeavor.

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They discussed the impossibility of solutions to the more general Poisson equation in three variables rather than just the radial symmetry of the two charge distributions with which they had begun. It was only Roger who could not be completely convinced but he let it go.

Christmas vacation was a wonderful respite from school for the girls even though school had filled them with joy from the very start. Still the relaxed schedule of vacation was welcome even with the unseasonably cold weather. It a time for snowmen and sledding.

Maria and Julie decided that although shopping online might be the reasonable way to go, still the big city, lights, and Salvation Army Santas were sights that the girls must experience on foot. So they arranged a several-day shopping trip to Seattle. Roger did not want to go – nohow! Eileen pleaded Johnny’s case for going with them; since Roger was not going, there would be room enough. So it was all arranged, and the day of departure came. He would keep the home fires burning.

Roger would have some time to browse his files and the internet to confirm or deny intuitions. He was happy. Relaxed. As evening fell Maria phoned to indicate their safe arrival with the girls and Johnny ecstatic with their discovery of the big city.

He was just off the phone when the doorbell rang; it was Jeanie.

“It’s too damned cold to be all alone, don’t you think? I smelled the smoke from your chimney and figured you must have a nice fire going in the fireplace.”

“Yeah, I do,” he said. “Come on in; you look almost frost bit with those red cheeks. How long you been walking around out there in this cold. Even with that parka you look awfully cold.”

“I am, I am,” she laughed. “I’ve been out way too long avoiding an empty house, I guess. What do they say about carpenters?”

“Let me have that parka; get over there by the fireplace.”

“Oh, thank you. Brrr. I am cold. This fireplace feels great. ‘Creaky steps’, isn’t that what they say about carpenters? ‘Leaky pipes’ for plumbers and a therapist afraid to be alone in her own house. Pretty bad, huh?”

“Is there a problem – have you had break ins or threats from clients?”

“No, nothing like that. Just my own demons, which is what I’m supposed to be capable of irradiating for other people.”

Roger disappeared into the kitchen and brought out a thermos of coffee with two cups and some cookies Maria had left for him.

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“Oh, thank you. That coffee feels great in my hands. I think I better wait to drink it though.”

“Yeah, you better. Is Robert working out of town again?”

“Robert’s out of town more than he’s in.” Then, “You’ve never asked why I recused myself in your regard. Why not?”

“No, I didn’t. Just the way I’m wired, I guess. I thought you would tell me if or when you felt like it.”

“Am I interrupting your study or anything? I know you three physicists have been up to something over here.”

“I was just relaxing; and unlike outside, it’s comfortable in here.”

“It is.” Sitting down on the hearth by seeming to just fold her legs and spread them outward, she asked, “So would you mind if we spend some time discussing the issue I have that requires recusal?”

“Sure. Is it an issue though? A problem? I think I’m doing fine.”

“Well, I don’t know to what extent it could be considered a problem and it is obvious that you are doing just fine. But let me just explain why I mentioned that before. You see, even though we’d never met, it isn’t as though I wasn’t intimately aware of your story. It’s like trying to select a jury for a celebrity trial. Everyone knows about your trauma and virtually everything else about you. My dad was a high school physics teacher and a baseball fan; he had played when he was younger and considered himself to have been pretty good at it. So naturally Ray Bonn was a big deal for my dad. The videos of him hitting home runs at Yankee Stadium and of him verbally abusing Tim McCarthy in that interview after the game when he retired got played over and over again at our house. Dad never got tired of it; he’d put that retirement video on and start laughing before it even began.”

“Yeah, my mom used to laugh at dad about that ridiculous discussion and his obsession with probability.”

“What your dad said about the probabilities was most likely correct even though what he had accomplished did seem like it was completely impossible. Your success made it seem somewhat more realistic that you and he were just that much better than the rest. By then I had a life size poster of you hanging in my room. I still have it. I love it.”

“Oh god. That has to go.”

“Anyway, I cried through every one of the disasters that happened in your life. I don’t know where I picked up the reference to Job that I mentioned to you. I’ve never been very religious either, but it just seemed so appropriate, so unfair.”

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“Yeah, well... I don’t think it is. But I have to admit to having accessed a pdf of the Book of Job since you mentioned it and I read it. The (quote) ‘Lord’ and ‘Satan’ personalities don’t seem very realistic to me – or the ten thousand sheep for that matter, but life being good notwithstanding truly awful things occurring matches my experience and I’m sure I am not alone in that.”

“Well, those bad things were not karma in your case; I know that much.”

“So, if you were to rescind the recusal, how would you proceed?”

“I thought we agreed to a continuing close friendship and open two-way communication instead. That seems to me to be working out fine and I’ll help you if you help me – with anything; how about that?”

“Sounds fair. So... how does it make you feel that Robert is away a lot.”

“Whoa!” Jeanie laughed. “That’s not the way you do it. You have to be more subtle. Like, was there a reason you didn’t want to go to Seattle with Maria and the gang? How did it make you feel when they left without you?”

“That’s subtle?” He laughed. “Like yeah, well, I thought if I stayed home and got a warm fire going in the fireplace Jeanie might come over and we could begin therapy.”

“So why would you think she might come over in the middle of the night in a snowstorm? Was it because you thought she might smell the smoke from your fireplace or because you suspected she would be vulnerable because her husband is away a lot? Oh, and how does this conversation make you feel?”

“Yeah,” he laughed with her. “It makes me feel like I understand why you may have wanted to recuse yourself and that maybe I should too.”

“You’re good at this; you could have been world class at therapy as well as baseball and physics, I’ll bet.”

“That’s it? That’s all there is to therapy – ask a few embarrassing questions?”

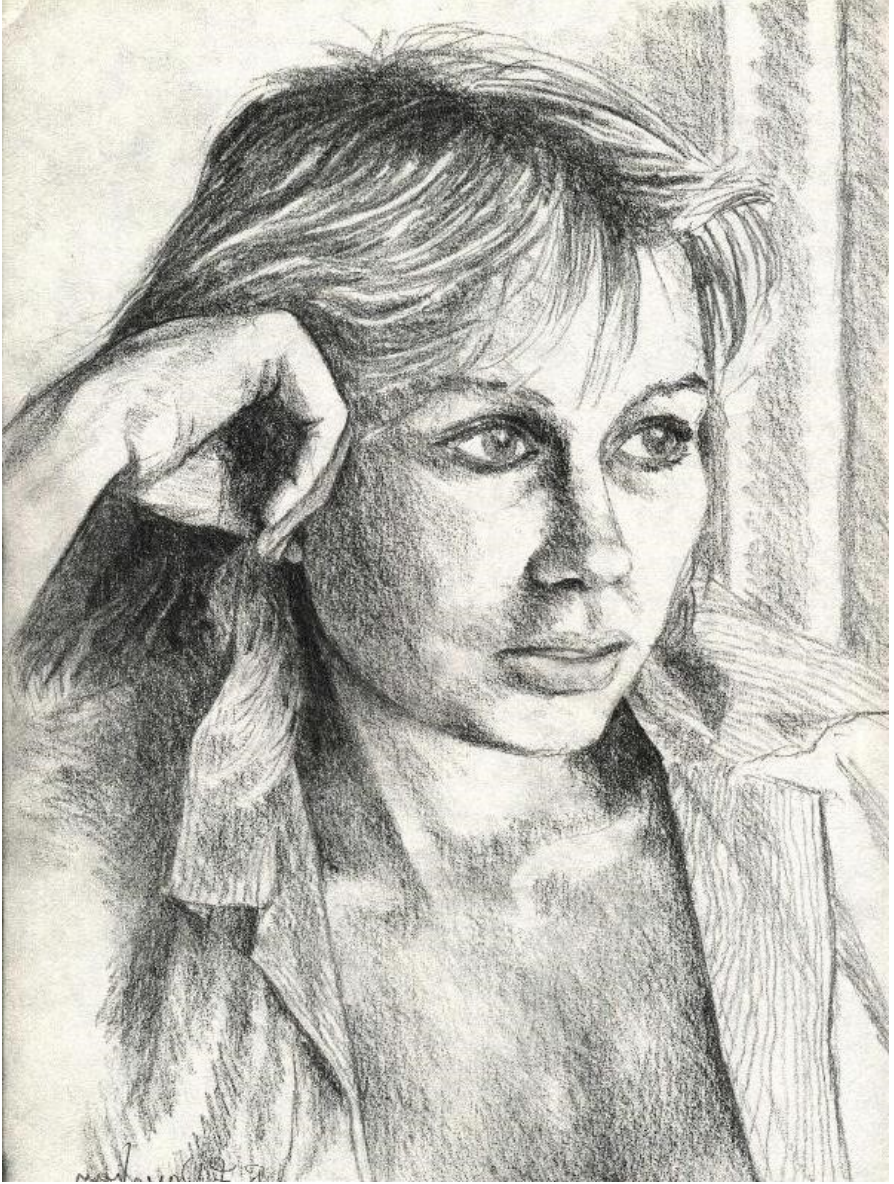
“Yep, if we were therapists; but we’re not.” She began unbuttoning her blouse. “We’re just two really close friends engaging in intercourse to help us make it through the night. You know what they say about a man and a woman left alone in a room for too long.”

Roger ignored the rhetorical question and stepped over to the hearth as she continued with the buttons. He put his hand down to her and she grabbed ahold of it to pull herself up. Still holding her hand, he reached down with the other to get the half empty coffee cup. Then he led her away from the fireplace, setting the cup on the drawing table



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as he passed, and picked up her parka that he had laid across a chair earlier. “You’ll need this,” he said as he held it open for her to slip in her left arm and then the right. Taking her left hand he proceeded toward the door. You know what they say about generals,” he said.



She just stared at him transfixed.

“The best ones keep their armies up their sleeveies.” He chuckled; she didn’t. He took his jacket off its hook by the door and put it on.

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Grabbing her dangling hand again, he stepped out the door. "I'll walk you home," he said.

The Wilson's place was dark except for the light in the front yard. He tried the door; it was unlocked. "You really should lock up when you go out," he cautioned. "You'll feel more secure." He reached inside for the light switch that is always situated in that location by every front door.

Jeanie followed reluctantly, agog.

"Are you okay now? Everything looks in order."

"Please don't tell Maria," she pleaded.

"Oh, no, I wouldn't. What happens between therapists and their patients is sacrosanct." Then he stepped back out the door, turned and said, "Please don't tell Roger how close I came to grabbing you in my arms and ruining the rest of our lives."

As he walked away, he recalled having read somewhere that Wilt Chamberlain, notorious for claiming to have slept with over 20,000 women, had said, "I would have rather loved and made love to one woman a thousand times than to a thousand women once..." Hmm. Roger wondered with snow drifting down around him what the setting for that comment had been. Trudging through the deep snow he looked back to noticed that lights had appeared in a couple more of the Wilson's windows.

Back home and defrocked, he placed a couple more logs on the fire and walked purposefully over to the drawing table, pushed the coffee cup away, opened a drawer to pull out a piece of paper, got a pen from the center drawer, and all in one smooth motion began to write out the Poisson equation in three dimensions. Then he attempted to partition the equation into dimensional parts to determine whether, or to what extent, that could be done. Stopping to think about it, he took the thermos and poured some coffee into the cup, not realizing now that it had been Jeanie's nearly empty cup. It was not too hot; it tasted just right.

He couldn't solve it. The partitioning of the homogeneous Laplace equation cannot be applied to the inhomogeneous Poisson equation. Thinking about it now, he realized that Julie and Maria must have realized long before he had that it could not be done, or they would have done it. He, on the other hand, had always held out hope that it could somehow be done.

Remembering now his talk with Julie after his retirement from baseball, he knew that her years long preoccupation with the problem would have brought her to this point years before. Her relating their

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solution to the quantum solution of the atom made it obvious that she would have attempted what had worked so well for Schrodinger. She had even doubted whether there was any valid justification for the inverted exponential charge distribution in the radial symmetry case.

$$\begin{aligned}\nabla^2 V(r, \theta, \phi) &= 4\pi \rho(r, \theta, \phi) \\ \nabla^2 R(r) \Theta(\theta) \Phi(\phi) &= 4\pi \rho_r(r) \rho_\theta(\theta) \rho_\phi(\phi) \\ \nabla^2 V &= \frac{1}{r^2} \frac{\partial}{\partial r} (r^2 \frac{\partial V}{\partial r}) + \frac{1}{r^2 \sin \theta} \frac{\partial}{\partial \theta} (\sin \theta \frac{\partial V}{\partial \theta}) + \frac{1}{r^2 \sin^2 \theta} \frac{\partial^2 V}{\partial \phi^2} \\ \frac{\nabla^2 R(r) \Theta(\theta) \Phi(\phi)}{4\pi \rho_r(r) \rho_\theta(\theta) \rho_\phi(\phi)} &= 1\end{aligned}$$

Thinking about it now, he noticed that his proof applied to the divergence theorem, which for radial symmetry was tantamount to the Poisson equation. He wrote out the divergence expression.

$$\nabla \cdot \vec{E} = \frac{1}{r^2} \frac{\partial}{\partial r} (r^2 E_r) + \frac{1}{r \sin \theta} \frac{\partial}{\partial \theta} (\sin \theta E_\theta) + \frac{1}{r \sin \theta} \frac{\partial E_\phi}{\partial \phi}$$

In the end his proof had required the acceptance of a series of, however realistic, still quite a few, assumptions that generated the inverted exponential function as a solution. One had had to accept the radial component of the gradient of the potential as the total field strength vector with no rotational or azimuthal dependence. And one had to be aware of experimental observation that field strength is equal to the inverse square of the encapsulated charge out to a given radial distance, and encapsulated charge is equal to an integral of the charge distribution out to that radial distance. All of those were obvious assumptions, although traditionally total charge was assumed rather than encapsulated charge. Finally one had to accept an additional boundary condition at the origin. Breaking those last two links with their more traditional background and credentials must have been what was the most difficult for Julie – and for Maria too. But they had broken away with him.

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His mind wandered to that time already so long ago when he had walked diffidently to Julie's office at the end of that long hallway. Her excessive joy at seeing him had made him uneasy, her enthusiasm to begin a project that defied the establishment of which she was a major part had rather amazed him, and her initial resistance to his involving Maria had seemed strange to him. The hesitancy all of them had initially had for the project as though they were attacking windmills made sense.

A simpler resolution than Wile's proof of Fermat's theorem had come up in his and Julie's conversation on that first occasion – both having admitted to naively wasting too much time on it. Roger recalled mentioning where he had left his effort when he realized that one could draw an infinite number of lines through the unit square, with no point  $(x,y)$  on any of those lines involving a coordinate pair that were rationally related. He had mentioned it to Julie, but he didn't think she had realized exactly why that had seemed so significant to him. It seemed most ably captured in a passage he recalled from Cantor: *"I see it but I don't believe it,"* he had written to Dedekind. *"There are as many numbers on the side as in the square."* That was the issue with irrationals – their prodigious proliferation. They are numbers without control.

Roger poured some more coffee, sipped over the rim of the cup, realizing that it was cool enough directly from the thermos now to drink without requiring him to sip and that he had finished what Jeanie had left in her cup. Diverted now, he remembered her sitting there on the hearth expectantly unbuttoning her blouse appealing to what there was of a man in him; he shivered involuntarily, sat the cup down and wrote out an expression of Fermat's theorem.

$$a^n + b^n = c^n$$

with  $a, b, c,$  and  $n$  all integers with no solutions for  $n$  greater than 2.

Remembering now the unit square representation and how he had gotten to it, he wrote:

$$(a/c)^n + (b/c)^n = 1$$

Then having defined  $x = a/c$  and  $y = b/c,$  both rational.

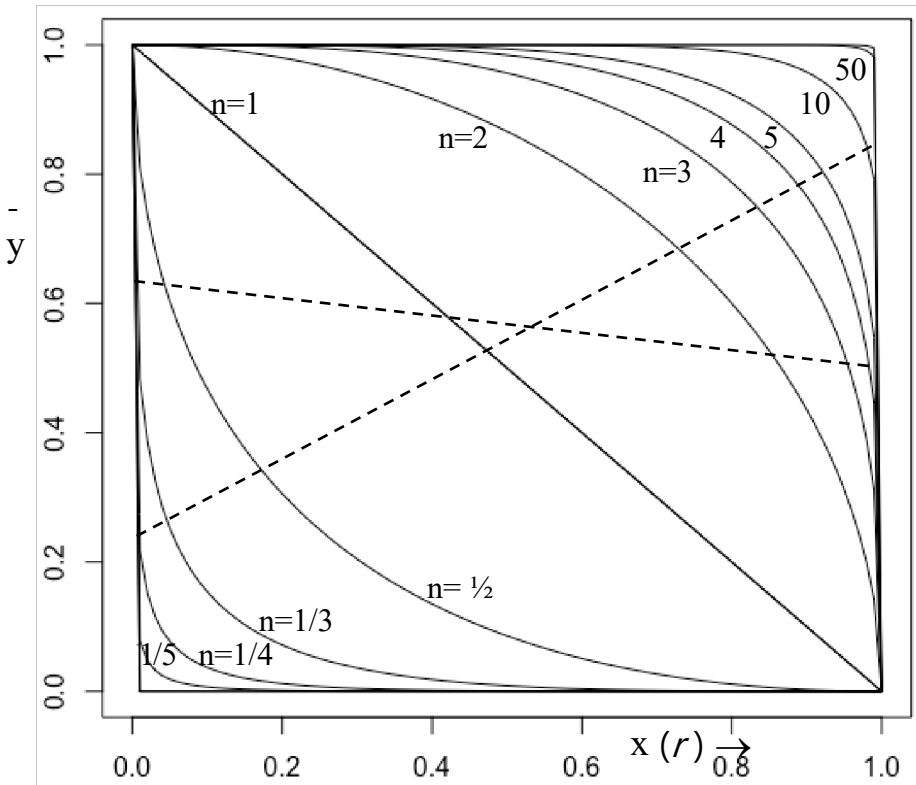
He opened his laptop on the table next to him and proceeded to the icon for plotting curves. He plotted  $y(x)$  for various integral values of  $n$  and  $1/n.$  Each of these curves could be expressed as the function,

$$y = \sqrt[n]{1 - x^n}, \text{ for } n > 1$$

No point on any of those curves for  $n$  greater than 2 or rational values less than  $\frac{1}{2}$  has a single value of  $y$  that is a rational number times  $x$ . Yet, one can draw seemingly continuous straight lines at random (he drew a couple) for which  $y$  is a rational value times  $x$  throughout that space. But of course, they are not continuous; there are more points along even those lines for which one or both of  $x$  and  $y$  are irrational.

‘Transference’. That’s what it’s called, he thought. He wished he had told Jeanie that.

If one were to throw a dart with an infinitesimally sharp point at that unit square, the probability of striking a point representing a pair of rational numerals is virtually zero – smaller than tossing a hundred heads in a row with a fair coin that had so consumed his father. Yeah. What he grew up hearing about. What Jeanie had grown up hearing and seeing. No point (a *zero* probability of a point) along any continuous curve for  $n$  greater than two (not a single point!) represents a pair of rational numbers. Like Cantor, Roger saw it, but he could scarcely believe it. Even yet. Even now.



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Jeanie might have appreciated that fact; she understood his father's point about the virtual impossibility of everyday occurrences and not just those we consider weird. Everything is weird; we live in the weirdest of all possible worlds. He poured some more coffee and thought of Jeanie sitting there, her blouse unbuttoned.

As Cantor had noted, one could color in that complete square with pairs  $(x,y)$ , both of whose values were rational numbers, but each of the points that comprise the color of such a square is surrounded in its immediate vicinity by an infinite seething sea of irrational numbers. Irrationals! All those curves for  $n$  greater than two and less than  $1/2$  dodge and miss every single point for which  $y$  is rational related to  $x$ . Fermat shouldn't have tried to be so cute.

Virtually everything is irrational!

'We are not therapists' Jeanie had said. There is no rational relationship between this and that. A man and a woman left alone in a room for long enough would do what men and women do. A continuous sequence of instinctual events like the seething sea of irrational numbers is all that connects the events we think we understand and for which we pretend to be accountable as rational. Why pretend to understand or take the blame or credit for the incomprehensible? We must all recuse ourselves from being anything other than a listener and helpful contributor. When Roger had finally indicated a willingness to submit to analysis, she had offered only the lesson of Job. Every straight line possesses a virtually continuous sequence of rationally related points, but between even them... yeah, the seething sea of irrationality that could be attributed to Satan, original sin, or whatever, but... at least a straight line can reach the next rational event in any case... a straight line.

Roger checked the windows in his browser, clicking on the one with the Book of Job and re-read the final verses:

*12 So the LORD blessed the latter end of Job more than his beginning: for he had fourteen thousand sheep, and six thousand camels, and a thousand yoke of oxen, and a thousand she asses.*

*13 He had also seven sons and three daughters.*

*14 And he called the name of the first, Jemima; and the name of the second, Kezia; and the name of the third, Keren-happuch.*

*15 And in all the land were no women found so fair as the daughters of Job....*

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Jeanie had got that right; a connection exists between the beginning and end of Job's life despite the disasters in between – the irrationals between rational points on a straight line. One could live in such a way, a straight line so to speak, that in spite of all the incomprehensible interruptions, there could be continuity between events that make rational sense.

How did he feel about that?

Good. He was a lucky man; he had finally arrived at a next rational point in his life. Of course that didn't mean he could necessarily understand what had happened or what would happen next.

It was late – too late to work on the complex algebra of adding electrostatic and gravitational charge or a three-down-quark electron. But he felt like the cobwebs had been swept away from his thinking. It was a comfortable place to set up camp on the side of Mount Everest however mixed the metaphors he chose. He was tired, but his mind was free as he crawled under covers.

# PART IV





## 24 THERAPY SESSION

Next morning Maria called early before the Canyon Place gang had headed out to breakfast in the big city. All was well with the Christmas tourists. Roger gave Maria a general description of events of the previous night, in no way betraying any indiscretion by Jeanie or himself. She had walked over in the snow; they had had coffee and he had walked her back home – end of story.

“That’s good,” Maria approved. “She’s having a hard time with Robert’s affair.”

“He’s having an affair?”

“Yes. She told him to work it out and be done with it or leave by the first of the year. She’s a little fragile right now. She thought it would be good for Johnny to get away for a bit as well. I worry about her. Check in on her, would you?”

“Yeah.” His thoughts drifted to last evening. “Okay; maybe I’ll see if she’s had breakfast.”

“Do,” she replied. “Enjoy yourself with the physics, Fermat, and Jeanie.”

Then there were loves both ways before Roger was left sitting up in bed with a silent phone in his hand wondering what to do. Then the phone did its dead phone noise and he clicked it off. He was dressed without having yet figured this whole thing out. Then he was ringing the doorbell at the Wilsons, still not having figured out what he was doing.

The door opened ajar, enough to witness Jeanie’s pained expression, before she had fled, her bathrobe flaring out behind her. Roger’s foot prevented her slamming the door in his face. He clicked the door shut after entering and pursued her on into the master bedroom on the far side of the house overlooking the reservoir – lake, he corrected. She turned then, trapped, cornered, and convulsed in sobs, tears streaming down her cheeks, a dam having broken

somewhere. It was as though the sounds of the unspoken words “Oh, my God; oh, my God,” were all that reverberated as waves crashing on the face of the deep. He grabbed her and squeezed her to him repeating “I’m sorry, I’m sorry, I’m sorry” right next to her ear until a calm had settled in upon them both. Crashing onto the bed they quickly became entwined like a single eight-legged creature thrashing with one heartbeat and breath.

Roger laid there panting, amazed at ‘what men and women do if left alone in a room together with inhibitions overcome’; Jeanie was on his arm. She had warned him. “I kept thinking of you last night in between equations,” he said, “I recalled that ‘transference’ is what it is called; I wanted to call and tell you.”

“You didn’t, it wasn’t, and you’re too late;” she laughed. “This wasn’t therapy, Roger. This was life-saving resuscitation.”

“I know, but it seems to have worked for me,” he was laughing now too.

“Me too,” she laughed even harder now. “I don’t think anything else could have.” She leaned up to kiss him. “This won’t ruin our lives though, Roger; I promise. I won’t let it. We won’t let it. How could it if we don’t let it? Let’s have today with no guilt; tomorrow we can sort it out.” Then they slept in each other’s arms for an hour or two. It was the smell of frying bacon that awakened him.

He received a kiss on meeting her in the kitchen.

“Could Robert come back today by any chance?” Roger asked diffidently, concerned, walking down the hallway to lock the door that had remained unlocked since he entered.

“No. He came by yesterday to pick up his bags; I had packed up all his stuff. He won’t ever be around here again other than to pick up Johnny for whatever schedule a court decides is fair. He just doesn’t care.”

“Oh, I’m sorry.”

“Don’t be.” She placed cups, plates, and silverware on the table. Then as she poured their coffee, she added, “He’s evidently having fun – or thinks he is – with a more exciting woman. I was upset yesterday after he picked up his things, which is why I came over last night. I blew my debut though, didn’t I?” She laughed. “But today you’ve given me a second chance and more joy than I ever could have experienced with Robert. I don’t think he’s capable of empathy or kindness or love or anything but his own success and money. Let’s forget all about him and fill this day with happiness enough to last forever.”

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“The plan works for me but implementing forever could get tricky. No forever has ever worked for me.” Then after a pause, “don’t you have any sessions scheduled?”

“I canceled then all till next week. There won’t be any interruptions – just us. Today let’s commit to helping each other like sponsors in double A. I learned a lot about being happy remotely, knowing you would be happy every time you hit a home run. That started when I was very young. My dad idolized Ray Bonn, but I worshipped you. I followed your achievements in triple A and in the majors, and more recently I have watched you in person up here at Canyon Place, still without being any part of it, but happy just to be aware of you.” She placed a platter of eggs and bacon on the table while he finished buttering toast that had popped up. As he walked behind her, his fingers slid along her bare shoulder beneath the robe, touching her cheek before, sitting opposite, facing her with a view across the lake.

“You have been part of my happiness ever since we met that night jogging. Maria told me that I should get into therapy. Even though you refused – well, recused yourself – you helped me with the sermon about Job. So you’d already become an integral part of my happiness. Every evening after that, I hoped to meet you on the path. That you had synchronized emotional reactions to my experiences long before that is a lesson I must learn. I can learn. Last night rather scared me. I shouldn’t have been; we needed to talk, have intercourse as you said, I shouldn’t have been so uncaring. Today doesn’t involve the old saw of ‘my wife doesn’t really understand me,’ because she does. This morning when she called, I told her you had come over and we had coffee – that’s all I told her by the way – except that I walked you home through the snow. She was glad we had been together because of what she told me about your and Robert’s problems. She thought having breakfast together was a good idea.”

Jeanie put her fork down. “That’s why you came over?”

“No.” He responded to her disapproval. “That’s just my cover story.” He smiled. “I was coming over anyway; I nearly came over in the middle of the night, when thoughts of you were flashing in my mind along with symbols in the equations I was trying to solve. I finished your half cup of coffee and however many times I refilled it, I tasted you and thought of you freeing those buttons on your blouse.” He stopped. “Jeanie, I’m just blubbering here.”

“You’re doing fine.” She laughed. “I’d like to hear you blubber all day every day and into every night. I like the idea of flashing in your mind.” Then, “I know you love Maria and aren’t too worried

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about her damning us to hell. I love her too and know she is very understanding of you – and me too. So please blubber away just because I love it and we need it.”

“Are you done eating? Can we go back to bed?”

She stood up immediately, her robe sliding the rest of the way off her shoulders and onto the chair. “Take me where you will but talk to me as well; that’s what intercourse should be and too often isn’t.”

He took her in his arms, lifting her then with an arm under her thighs. He carried her back to the bed, laid her down gently, and sat beside her with his hands and eyes all over her. “I know this isn’t therapy with transference, but it isn’t just a man and a woman alone in a room awkwardly filling time,” he said. “Since it is neither transference nor meaningless sex, it must be love pure and simple, however new, however unbecoming. Love. This is real for whatever reason. We both know that. But besides you being a woman with whom I have become obsessed, you are a therapist. And by God Jeanie, I need your therapy. There is stuff I need someone besides, or in addition to, Maria to know about, someone from whom I can get some help with whatever else lies hidden under there like the little town of Canyon Creek covered over by that lake out there. Maria has forced me to call it a lake instead of a reservoir and I think that’s actually proved to be very helpful to my psyche, but Canyon Creek is still down there whether it’s a reservoir or Lake Cascadia on top. Right? So would you please un-recuse yourself without losing your love for me? Help me to get the hell out of that little town.”

“Come here,” she said as she reached up to pull him down to her. “I will never lose my love for you; it’s a lifelong obsession. I would like desperately to help you with our mutual demons; maybe we’re both down there. Know from the start that what’s buried in my past is very much like what’s buried in yours. We’ll need to help each other with it. So tell me all about it. Tell me about your father.”

“Yeah. First of all, the girls don’t know all of what I’ll tell you, so don’t ever let any of it slip to Johnny. Julie doesn’t know some of it. Maria knows it all and if you ever need to talk with Maria about any of it, that’s fine; she will work her way around it. She knows all the facts but there may be subtleties of how I feel about certain of those facts that she may not be aware of because I haven’t even acknowledged it myself.”

Jeanie interrupted him at this point. “I know it probably seems like I’m avoiding just telling you outright why I recused myself, but I won’t any longer; I’m anxious for you to know all about my reasons.

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Roger continued as though there had been no interruption. “What is a problem that you need to know, however, is that some facts are not just embarrassing but would be devastating if anyone, but an inner circle, learned about them. You are now inner circle, okay?”

“Yes, where I long to be. I would never let out a secret; that’s a general rule, but for you in particular, Roger, I would die first.”

“Don’t do that.” He stopped speaking while he touched her body here and there nervously. Then with his hand quieted over her heart he blurted out, “Ray Bonn was not my father.”

Jeanie shoved his hand aside and reared up to a sitting position. “No. You can’t do that; it isn’t funny Roger; you can’t make fun; we’re in love.”

“We are in love,” Roger sort of chuckled, “I’m really sorry, but it’s true.”

“Roger, it can’t be true. You look just like him; you even act like him.”

“Exactly,” he responded. “Déjà vu all over again.”

Jeanie just sat there startled, staring at him for seconds. “Oh my God.”

Tears came in gushes. “Oh, Roger, I’m so sorry. I really am.”

Roger held her to him tightly then. “I’m sorry too, but this is a through flight. You can’t get off in midair. You’re going to have to fasten your seat belt. And if you were wondering about how I feel about the fact that Ray Bonn is not my father, well, the answer is... not too good.”

“Oh Roger, I wouldn’t ask you such a stupid question as that; I am not acting as a therapist here.”

“I know, but you must have questions.”

“So you’re a clone, right?”

“Yeah. And yes, it’s been illegal for a long time.”

“Why? I mean why did Ray have himself cloned?”

“He didn’t and he didn’t realize he had been cloned until I was in my teens.”

“Could I just ask a very personal question?”

“Yeah. Like me being a clone isn’t personal? I feel it personally.”

“Oh, I know. Sorry. But what did Maria say when you told her?”

“‘Yes.’ She said yes, because I had just asked her to marry me with the caveat that before she answered she had to know a secret about me.”

“That was all she said? Yes?”

“No. She immediately added, ‘And Margie is Lesa’s clone and that’s your hang-up with Tommy marrying Margie.’”

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“Oh my God, Roger. And you said yes about Margie?”

“Yeah. Those are facts you can’t tell anyone. You and Maria are the only ones left on planet earth who know.”

“Oh, Roger, I am overwhelmed; could we please take a break with you holding me for a little while – maybe a long while?” She lay back appealing to the entirety of him.

“Excellent idea.” He laughed as he plunged down upon her. “You must be getting bored with déjà vu all over again.”

“Not ever,” she smiled preceding an exhausted sleep.

When Roger woke up this time, he looked over at Jeanie who was smiling at him almost victoriously and he didn’t mind. “Why did you come upriver? I mean, of all places, why here?” he implored.

“You.”

“Me? Robert must have been a part of that decision. You were married then, weren’t you? Why would a lawyer – or a therapist for that matter – want to live in a remote village way the hell up here on the ridge?”

“You. And no, although Robert and I had gone out some, we weren’t very serious. It was after your wife was killed in that mass shooting that I decided I would come up here, hoping you might need me.”

“Really? Stalking?”

“I suppose. I think I’ve been stalking you my whole life.”

“Geez. And all I ever worried about were paparazzi. Dark glasses wouldn’t have worked with you, would it?”

“Not at all.”

“So why didn’t I ever see you?”

“The pandemic.”

“The pandemic?”

“Yes, the pandemic. You may not have even been aware that there was one. You were probably unaware of social distance restrictions because you went nowhere anyway. I know because I used to park out there on the street to eat my lunch and then sometimes wait there for hours afterward. That was when I’d come up looking for a house to buy – this house eventually.”

“I never saw you, did I?”

“I don’t think so, but a couple of times I rang your doorbell and when you finally would come to the door you looked so absent it broke my heart. You never wore a mask so one time when you came to the door, I had a mask to hand you, an N-95 mask. You took it and looked at it as though you couldn’t figure it out. I tried to explain it, but you had already turned away and shut the door in my face.”

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“That was you? The blond-haired girl with the mask?”

“It was I,” she smiled, “looking out for you. You were holed up here a long time. An older woman came up once in a while to stay for a few days; that was Lisa that I met a few years ago and then Maria told me that she had died as the reason you guys were gone for a few days to her funeral.” Roger sat in rapt silence.

“Then one day after the pandemic had pretty much run its course and the papers were being finalized on this house, I was sitting in my car eating my lunch, getting up the courage to go up to your door again to actually talk to you. I was doing pretty well with my therapy business over the internet with Zoom by then and I thought I finally had the confidence to actually hold it together in a conversation with you. But right then, of all times, a car drove into your driveway; I could see that it was Lisa, but she had this beautiful young woman with her this time, and I saw you take Maria in your arms kissing and kissing till I couldn’t look anymore; I drove away sobbing. I knew my game was over. But by then I had bought my way into the neighborhood, with this vantage for watching you and Maria and the entire family as it began to blossom again.”

“Whoa! This kind of therapy is amazing.” Roger sort of half laughed, if that’s the right term. “I don’t even have to tell you all about that horrible time in my life or how it did, in fact, sort of blossom after that.”

“No. I was here. I lived it with you and recovered with you. Vicariously.”

“What happened next in your life though Jeanie? There is so much I want to know, that I probably should have known since we have been neighbors all this time.”

“Well, that’s not the kind of networking men and women do, is it?”

“No, it isn’t. We do this kind,” he said as he kissed her lips.

“Well, it isn’t just ballplayers that have to figure out what to do when they don’t make the playoffs. But you probably aren’t too familiar with that are you?” she laughed. “We lick our wounds and make do. That’s what we do. Eliminated by evolution.”

“Okay, but where did Robert come from?”

“Well, he had been hounding me for dates.”

“Because you were the most exciting available woman.”

“He doesn’t care whether women are available.’ She frowned. “But I think it was my emerging success, largely because I had capitalized on working from home over the internet and was doing pretty well. He heard about me from someone else in his company



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that was doing some financial work for me. I had gone out with Robert a couple of times before moving up here, so with my freeway blocked off I took a detour. Robert was the detour.”

“Oh,” he said. “Probably not the way Robert saw it, but I guess people do that. If we can’t be who we want to be, we become someone else.”

“Yes,” she said with a bit of snark. “Normal people do it all the time – even ballplayers and physicists.”

“Yeah. So Robert had no problem with working from up here?”

“The pandemic changed the way people viewed work; he was lawyering online already, and the airport provided him a ready escape whenever he needed or wanted it. Turns out he wanted it very often.”

“So we’ve both been up here on the Ridge for years, almost next-door neighbors and still not knowing each other.”

“You didn’t know me, but I knew you.” She was silent for a few seconds then, an amount of time usually referred to as ‘a moment’ that we think of as ‘a minute’, but it isn’t, it just seems like it. “If this were a usual therapy session, I’d say, ‘Well Roger, we made a lot of progress today; I think we had a breakthrough.’ But we haven’t. We’ve just reviewed some facts; what we need to evaluate is the psychic pain that we associate with those facts. Right?”

“Yeah, I guess but...” He gazed out over the lake until it got awkward for Jeanie.

“But what?”

“But... that attack at Bend was not an isolated shocking psychic event for me; it was just the bottom of a cliff. In fact, it was more like the singularity at the bottom of a steep incline that Ellie and I had been sliding down without my even knowing it. Ellie should not have been in Bend with another man instead of me. I would have been with her if we had not grown apart while I was off playing baseball and been unwilling to adjust to Ellie’s lifestyle once I retired. I had a hard time adjusting I guess you could say.”

“Roger, I’m not even pretending to be your therapist; I’m just listening because I love you and witnessed the pain on your face firsthand. Maybe I’m just a stalker like you said. But that whole situation really affected me. I’m going to be what would be totally unprofessional if I were your therapist or had been Maria’s to the end, but I am not and I didn’t. What I’m going to be instead, is completely honest. Having listened to Maria on this very subject in therapy and then after I had recused myself as her dear friend, I am familiar with other events that contributed to both your feelings of guilt. She told me she had encouraged you to engage me for therapy sessions and

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that she thought I should just tell you up front what she had told me with regard to that mass shooting event and your intense relationship that had started the very day before. And because I want to always be honest with you, I should tell you that that day we first met, she had called me to tell me that you had started jogging off up the trail and maybe I should talk with you. So even that was not a coincidence, but one of your women looking out for you.”

“Oh God. She didn’t. And the other coincidences of our meeting just as I ran by you place?”

“Yes. But in case you’re wondering, she at no point ever said anything that would have remotely suggested the cloning thing. It would have completely freaked me out if I had not felt the intimacy of your body right up next to me and that it was you, Roger and not Ray Bonn or anyone else or like anyone else. That’s why it isn’t all that weird to me. Your women love *you*.”

“My women? *My* women? That sounds so sordid, like I have groupies like the cheating ballplayers I knew who laughed at me for being faithful to one woman.”

Jeanie laughed. “You try hard not to be like everyone else, don’t you? I assume that was before you learned about what men and women do if left in a room alone for long enough? Whether they’re good people or not.”

“Damn it Jeanie, it was love. It wasn’t just cheating. Don’t you see that?”

“Of course I see, because I love you more than I could ever love anyone. But you loved Ellie and then Maria more than anyone, and me – a lot – I know, I’m not stupid. But it isn’t like... if I give ten cc’s to her, there’s nothing left over for anyone else. It’s precious stuff, I’ll grant you that, but not in that way. So what if Ellie loved Joe, and Maria loved Eddy (your stepbrother, or son,” she chuckled, “uncle, or whatever he was), and I loved Robert. Who cares. Each of us has loved you much more if it even matters that it’s just a little, more or ‘much’ more. It’s love. I can vouch for that because I’m one of the women who loves you with her whole heart.” She paused with Roger staring at her, “and I am hoping to hell nothing happens to our Canyon Place travelers that would force me into a singularity with the depth and darkness of the ones you and Maria have survived. I don’t think I could survive it.”

“Yeah.” He laid back down beside her, holding her hand. “Me either. Thank you for listening and talking the way you do both.”

She kissed him. “Are the kisses alright too?”

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“Bitter coffee from a cup your lips touched hours before tasted sweet.”

“You’ve totally healed a despondent woman who answered her doorbell this morning wanting to die by the laying on of your hands and you seem to have survived that life-giving transfusion of you into me.”

“That is not a mere transference of substance you’ve been a party to.”

“I know there are more issues left to address – more deaths and that little town of Canyon Creek down there, but we each have a sponsor now and we’ve established a dialog for addressing issues if and when they overwhelm us. So let’s enjoy the rest of this day and the hours until the travelers return as if it’s all we have. We both know it may be, that we can’t walk away together and leave ruined lives of those we love behind. Who knows what will happen; just know that you will always brighten any day for me whether you’re with me or I’m just reliving today. We can broaden the scope or reduce it to zero later depending on what happens when the travelers return. Don’t you think?”

“I do.”

## 26 FINAL RESOLUTION

Holiday festivities had come and gone as the joyous occasions they are supposed to be – even for atheists. The girls and Johnny were back in school. Julie had gone down to the bay area to help resolve some issues in the department.

“Is Ben in trouble again?” Roger asked Maria, assuming her relationship with Julie would have precipitated such information.

“I don’t think so. I think it’s just some paperwork they’d like her to help them out with for funding.” Then she asked, “Did you see Jeanie yesterday on your run?”

“Yeah.”

“‘Yeah?’” she mimicked. “Well, how has she survived the holidays with Robert keeping Johnny longer than they had agreed? She said he just got him back in time for school today.”

“Oh. I didn’t know that; when did she tell you that?”

“I saw her this afternoon at Grocery Outlet; she said she was exasperated. Didn’t she seem concerned when you saw her last night? Don’t you talk when you run together? Or weren’t you running?”

It was an awkward moment – that indeterminant amount of time again – in which Roger was in the unfamiliar matrimonial territory of ‘what does she know?’ and ‘what should I say?’ Finally he just blurted that out. “What do you know? It might help me figure out what I should say.”

Maria virtually doubled over laughing at his awkwardness. “What would you have done if she had collapsed with a heart attack while she

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was still naked and sweaty, you had to frantically call 911, and get to work on CPR, all while you were pulling clothes onto a limp body?" She could barely get it all said, she was laughing so hard.

Roger scowled with anger, not seeing the slightest amount of humor in what she had said. Finally a vindictive retort just blurted out of his mouth, "I probably would have called the only person I know who ever had to do that and asked her how she did it with Eddy." And then he too was convulsed with laughter

Still laughing her hardest, Maria said, "Roger, I swear to God you are an emotional cripple."

"Of course I am," he said trying his damndest to maintain a scowl. "It just happened. I don't think I could have avoided it. I guess I didn't want to avoid it. It seemed like it just had to happen independent of what I wanted or didn't want. She was totally despondent, and she needed me more than I've ever felt needed. It was like, what else could I do, and when we were in each other's arms it was like I had been predestined for that moment, like it had been inevitable."

"So have you wanted to tell me ever since we got back from our Seattle experience, or were you waiting for me to ask, or for Jeanie to tell me?"

"I don't know. I knew I had to tell you, but I didn't know how."

"You don't know how? Now since you are Roger Bonn, clone of Raymond Bonn, I believe you because I know you have never learned a clever way to lie. It's just not in you."

"What's that supposed to mean?"

"It means that if you can't figure out what in the bloody hell you want to happen now, how in the hell do you expect what you want to happen to, in fact, happen?" she virtually yelled.

"I suppose 'I don't know' would be the wrong answer to that if I knew what in fact I would like to happen, so my only correction is to put a 'please' in front of what I asked you in the first place: 'What do you know?' and 'What do you think we should do?' Because I don't fucking know! If you tell me, then I'll have a better idea of 'What it might be reasonable to say?' Isn't that the proper way that people lie?"

He was able to laugh a little bit at this point before adding, "I'm just a beginner at this you know, and... and I wouldn't want to be an expert. Just to be clear, there is nothing I will not tell you if you ask me. It's hard. I told Jeanie that as far as I am concerned, she could tell you anything and everything about our relationship because I don't want anything to destroy your and my love for each other... because even though I can't help loving her, I've loved you longer... for more reasons... and it won't ever stop. I have never fallen out of love with

you and never will, no matter what happens. And that is the absolute truth. It's fucking awful but it feels more like a natural disaster than anyone's fault." There was no more frivolity, just anguish in his voice. "So go figure."

"I have," she said. "I suspected what had happened shortly after we returned. I did finally ask Jeanie by the way because it was easier to ask her than to ask you, my own husband. I think she told me everything, crying all the while. So that's what I know, and me having to ask her about you and her is something we should fix, don't you think?"

"I do think so, yes."

"I love you, Roger, even in this. And I don't want our relationship and especially our parenting role with the girls to be sacrificed. I think I can say I love Jeanie too – in a different sort of way, of course. I was devastated at first, sad, and then angry – couldn't you tell?"

"I guess I'm not very observant, am I?"

"I'm still a little pissed at her to tell you the truth," she continued, ignoring his response. "I blame her... and you. I don't imagine that any of this is transference even if she is your therapist – recused or not. But sex is not supposed to be a part of therapy unless you have erectile dysfunction or impotence that I hadn't noticed." She paused here more for emphasis than anything else. "We've all been through an awful lot, much of it together so whether Jeanie or either of us recuse ourselves from a therapeutic role, we do all have responsibility to each other. I know that and I know that I encouraged you to have a personal relationship with Jeanie. I think that it was good for you—and our relationship... to a point. Our lives were almost like a living hell except for the girls before that." She paused again thoughtfully, "so I'm grateful to Jeanie for that, and I'm sure that your relationship with her had to have intensified quite innocently after I told you to give her some comfort in her desperation. I do understand that."

"Yeah. It ... it just *happened*."

"I know and once it's out of the tube, toothpaste just won't go back in, will it? I know that too – especially after you've already brushed your teeth with it." Despite the cynicism, she smiled at Roger a little kinder now.

"I think Jeanie told me everything including that you told her the cloning secret which she said she would keep forever no matter what happens. That probably wasn't smart but when you love someone you do things that wouldn't otherwise be considered smart. I know that. She said that you told her she could tell me anything at all about the

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two of you.” Another pause, “and that you had both agreed that your relationship might very well end without consequence.”

“Yes. That’s all true.”

“Didn’t she tell you last night that she had told me all that?”

”No.”

“Well, she should have. I guess you both had other things going on,” she snarked. “It is time the two of you address whether ‘without consequence’ is what you both prefer.”

“Yeah. She seemed upset, feeling guilt, and more down than usual. I tried to comfort her by sharing the guilt, I guess. She didn’t feel like talking. I wasn’t gone long, was I?”

“No. No, you weren’t. For once I was hoping you’d be gone longer to sort this out. So, yes, I know it all except for how it must have felt from your perspective to be with another woman intimately... I know the other side. And I know you are not a womanizer and could never make a habit of that sort of thing; it’s only – what? – the third time in your entire life?” She hesitated. “But I can imagine in detail – from my perspective because, like you said,” Maria had teared up at this point, “I’ve been there.” They were both silent looking at each other, both sad and somewhat bewildered.

“Two,” he said.

“Two?”

“Yeah. Not three. Not that it matters. I always looked down on my teammates with their affairs like they were low-lives – like I was so much their moral superior.” He paused, “I wasn’t. I’m not. I’m sorry... I guess I’ve lost any moral high ground I might ever have thought I had.”

“We’re human,” she responded thoughtfully. “All *too* human.” Then after a quiet moment. “There is no higher ground.”

“Yeah, cursed,” he said barely above a whisper.

“No, Roger. Blessed. Blessed with humanity. We must be willing to be vulnerable for those we love. That’s not a curse.”

“No. No, it isn’t, is it?”

“The curse, if there is one, is where we go from here.”

“I know. That eats at my brain. I don’t have any good ideas, or I would have addressed them with you right off. We should have called you as soon as we had done it. I think you would have understood, and I know that isn’t something that could ever happen and it seems all wrong. But... we slept from exhaustion and did it again... and again... and then there is no more innocent excuse that can be argued. So we tried to hide our intense relationship. It’s hard.”

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“It’s eating at my brain too—now that I know. I think you and I need to figure out what sort of compromise we can both live with that doesn’t impact the girls – or Nathan – too negatively. Then the three of us need to set some ground rules. Don’t you think that’s what we should do?”

“I do, yeah.”

“What do you think of going on your ‘run’ with Jeanie this evening after all the kids have gone to bed and inform her that the shit has hit the fan and the three of us need to talk tomorrow after the kids have gone to school. I think we can all three be rational, don’t you?”

“Yes... I hope we can.” ‘Rational’, that word again, Roger thought.

“Well, there are several usual outcomes. One is divorce, with perpetually angry ex-wives and spouses, or no divorce with perpetually bitter wife and lover, but probably an even harder one is trying to restore the previous status quo. Can you propose an alternative? Are there any? Hiding it won’t work any longer. We need to figure out among ourselves how we are going to resolve this.”

”None of us wants any of the usual outcomes, do we? And yet I know those are the only ones that ever seem to happen. I hope we can do better. Are you open to some alternative we might come up with?”

“I think so,” Maria said. “Jeanie and Robert are an example of one of the usual outcomes and Lisa and Eddie are another. I said ‘usual’. Let’s hope we can do better than either of the usuals.

“Lisa wasn’t a really angry person, was she?”

“Bitter,” Maria responded. “Don’t you remember? And that’s worse. I don’t want to get bitter. But until we get this thing figured out, keep spending some time with Jeanie, it’s fine. I understand. But this can’t go on or we’ll have three kids and Julie working on this thing with us. When you’re here and particularly if you’re in *my* arms or in *our* bed, be here, *really* here, not there or anywhere else. Okay? I don’t ever want to play a role I’m not aware of playing or wouldn’t want to play. You can understand that, can’t you?”

Roger answered in a very hushed tone, “I do understand, and I do agree with all of what you’re saying and asking. I love you very much and I don’t know how it could happen that I would love someone else in those kinds of ways. I didn’t handle it well when Ellie told me she loved someone else.”

“I know. I thought that was a little different—like she had maybe fallen out of love with you. That was how I justified my slutty behavior back then. That was probably very hard on you, but probably would have made it easier to break off your relationship. But we



apparently both love each other – Jeanie too. This is harder for all of us.

“Jeanie’s is not a good role; I have been ‘the other woman’ in a relationship; it isn’t fun. It can make a woman feel dirty even feeling without evidence that she isn’t. I was lucky enough to be treated kindly by the man’s wife, who ultimately helped to make all my dreams come true. Maybe I’m just giving back. I understand this problem and this time I know that the man standing between Jeanie and me is not a selfish bastard and does not want to hurt either one of us. We’ll figure this out Roger.”

“You don’t think I’m like Eddy – that it runs in the family?”

“Roger, I knew Eddy and you are no Edward Bonn.”

“What about Raymond?”

“I didn’t know him,” she said showing exasperation. “Julie knew him and loved him and doesn’t seem to suspect the similarity, so maybe not. All I can add on that issue is that your ‘other woman’ has defended you like I would never have defended Eddie. Could we just leave this in limbo until tomorrow?”

“Okay.” Roger reached over and placed his palm on Maria’s cheek.

“Kiss me, Roger.”

They kissed tenderly and then Maria said, “After your run tonight, stop over at Jeanie’s and let her know that we’ve discussed the situation and that she’s one of us. I think she might be worried. We shouldn’t prolong that for her, do you think? She’ll feel better about coming over tomorrow. She’ll have some ideas. Just get back here after you talk to her because I need you too.”

Roger sat there silently not knowing what to say, realizing the new complexity of his life.

After they had shared long kindly eye contact, Maria said, “Let’s look at that energy profile for the adherence of an up and down quark today before the kids get home. Then we can figure out what happens when we add that other down quark. What do you think?” She paused before spurting out a burst of laughter. “I’m sorry,” she said, still laughing with him joining into the merriment now. “That sounds so cynical, doesn’t it?”

“I see what you mean though,” Roger confirmed. “But yeah, back to what we love to do. I would like to do a little physics. It sounds fun. That binding energy is what we needed to prove, isn’t it? And that we’re still loving physicists in the process, right? I wouldn’t want to put that in jeopardy ever, but I am wondering whether the down quarks might have names now.”

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“Wolfgang Pauli would not approve if they had names and lost their indistinguishability. That you might actually assign them names would be a Pauling to Linus as well?” She responded and they both laughed.

Roger said, “but maybe names are like spin; they’re what make it work.”

Maria responded, “at least you’re not recommending we put sacks on our heads; I would get claustrophobic; I’m glad you’re not implying that Jeanie and I are equivalent in some sense.

“So who’s afraid of Wolfgang Pauli now?” Roger said.

“Or Virginia Wolf for that matter.”

They were both in good spirits heading into their office to access their computers and quark analyses.

Roger asked, “What about three down quarks without an up, should they be given names too or do they totally lose their identity in becoming a color-neutral electron?”

“Roger, you have to stop; you probably think they should be Maria, Julie, and Jeanie, right? It isn’t really that funny.”

“I know it isn’t. I’m sorry. I guess I’m just exhilarated to have that confession out of the way and still have the love of my life beside me doing physics.”

“I’m relieved too,” she said. “Tomorrow will be alright.”

Her files were open in windows on her computer now. “Look at this, Roger. The binding energy of the up and down quark has to be less than the positive repulsive energy of two down quarks in order for that second one to be added. That should give us a clue with regard to how small the gravitational variance of the up quark can be. It could give you another logical reason for things being the way they are. By the way, do you still believe that there is a logical reason for things being as they are? Fermat’s last theorem didn’t shake your faith in that?”

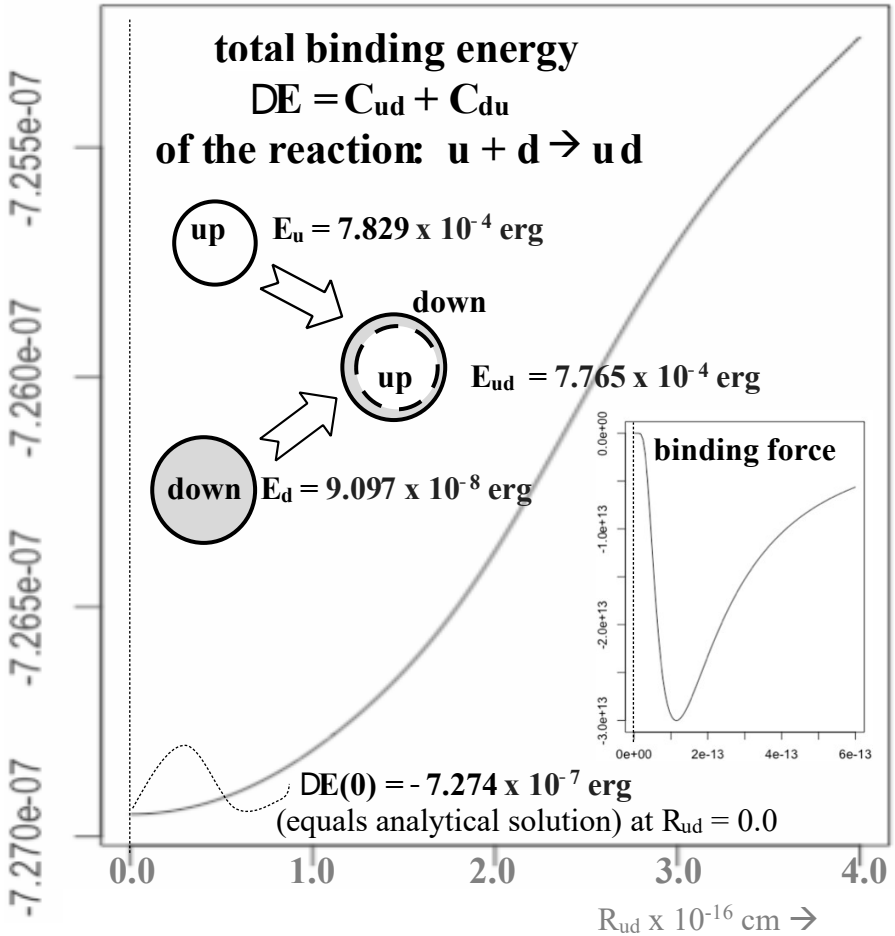
“Yeah,” Roger sat on the stool next to her. Then eagerly, “So now we can determine the variance based on the repulsive forces of the two downs. We already saw that with the up quark between them, the situation remains stable independent of gravitational charge. It’s just getting that second down into position before the first down collapses into the up; that’s the trick. If the first down is attached too tightly to the up quark, there’s no way to avoid annihilation.”

Maria rolled her eyes, “You’re really getting into this, aren’t you?”

“Yeah, it’s really cool. Aren’t you into it anymore?”

“Yes, I really like the physics of it, the anthropomorphizing not so much. Watching you is like watching a ten-year-old boy with a toy. I

may have just a little different perspective on the strength of attachment of that first down quark for the up quark don't you think?"



**Binding energy of a single up and down quark**

“How do you mean?”

“Never mind.”

“Aren't you into this? I thought you wanted to look into this stuff.”

“I am; I do. I *really* do. So let's calculate what variance could make this all happen.” After a pause, she added, “But don't assign names, okay?”

Roger looked confused. “I'm really sorry if I said something demeaning. I just love you and this stuff we're doing so much. It's fun.”

“Don't be sorry then. I love this stuff too. What I meant was that I wouldn't like being associated with a down quark – ‘down’, as in

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negative, you know? Especially one who shares an up quark with another down quark that would then be assigned a name as well. Maybe Pauli had the right idea after all. Do you get where I'm going with this?" She paused at this point and then proceeded, "Don't let your quirky mind go off on analogies, associating names with up and down quarks. That's what I mean. I like your being here – in the moment, even doing physics – with me. Now. Just you and me."

"Me too. I don't think I followed all that other. I didn't do that did I?"

"C'mon Roger! We add the other down quark – Jeanie, I presume – into the harem of this handsome up quark and get a more or less traditional neutral system as long as the first down quark – me – doesn't get too possessive. This whole thing is what we've called a 'd-u-d' dud. Follow? With your kind of ten-year-old boy thinking, these might just become tinker toys or Legos that will interact with another similar structure to obtain a proton and an electron and so much for the d-u-d and we're up to neutronium. What names would we give the 'p' and 'e'? That kind of thinking has to stop. Physics is just physics, Roger."

Yeah, okay. So that's what you were thinking. No. I do not associate myself or anyone else with a quark. It's just physics for god's sake."

"Good." She laughed. "And we're loving physicists, aren't we?"

"We are."

