

The Placebo Effect

Emrys Westacott

The CEO of Linneker Pharmaceuticals sat behind an expansive mahogany desk frowning at the array of charts and tables spread out before him. The great desk was one of the more satisfying items in Bob Hunter's life. Unlike his face, figure, voice or gait, it projected executive authority. Less satisfying were the documents spread across it, all of which projected a disappointing second quarter.

"Cheer up! It might not happen!"

A tall woman carrying a blue folder appeared in the doorway. Hunter looked up.

"Ah, Sally. 'Morning. Glad tidings from Research?"

"Pretty glad. Preliminary results on Cardaleve, the heartburn reliever. Looks good. Sixty-seven percent report significant relief; no observable side effects. I'd say we can give it the green light."

"Excellent!"

"There's just one wrinkle. Not a problem really, just something a bit odd. Look." She opened her folder and placed it directly in front of him. "Here's the Cardaleve results. Seventy-three percent during the first week, dropping to seventy by the second week, then leveling off at sixty-seven. And here's the placebo." She pointed to a horizontal green line. "Seventy-three percent from the gun and stays up there. No falling off. In fact no variation at all."

Hunter shook his head. "It makes no sense. Can you explain it?"

"To be honest, I can't."

"You're sure your research team didn't mix the placebos up with their hangover tablets?" Hunter smirked at his own wit. Sally Makin pulled a quick, unamused smile. Jokes about her unit's enthusiasm for the bottle were common currency throughout the firm.

“Seriously, I don't see it matters. Our brief was to see if Cardaleve is effective and safe. We've proved it is. Job done. Why two grams of sugar does better--that's a different question.”

“Hmm.”

Hunter leaned forward, elbows on the desk, hands pressed in front of his mouth as if in prayer. He had once seen a photograph of a chess champion holding this position and ever since had used it to project the appearance of intense thought.

“Remind me. Cardaleve is expensive to manufacture, right?”

“Very. One of the active components is a di-axial molecular conformation of cyclohexane. Tricky to isolate.”

“Hmm.”

Hunter's fingers knuckled into a scrum under his beard. Makin picked up her folder. “Well, just thought I'd fill you in. See you at the meeting this afternoon.”

Hunter nodded vaguely but didn't look up as she left the office. He was staring absently at the flickering red light of a surge-protected outlet strip lying on the floor nearby. He continued to stare at it for several minutes.

Bob Hunter's deepest desire was to be envied by his peers. Like most men, he would have denied this; he would have said he simply wanted respect. But if he were being honest he would have had to admit that he viewed respect as low coin, a commonplace enjoyed by just about anyone who managed to stay out of prison. To be envied, on the other hand, was to occupy the heights, knowing a destiny reserved for the few.

In the minds of those among whom he moved there was one sure way of achieving this goal: lakeside property. Lots of things might prick the competition's skin and raise a resentful little rash: a remodeled kitchen; quality wheels; an Italian vacation; an Ivy League daughter. But only a house by the lake could be guaranteed to open a vein and make the green stuff really flow.

The problem, of course, was money. The kind of house Hunter liked to imagine showing family and friends around would cost millions and require cash in hand of at least five hundred thousand. Even for the CEO of a medium-sized pharmaceutical

company, this was a hefty chunk of change; and for one slinging out alimony by the bucket every month it was prohibitive. Socking it away piecemeal out of his salary would take too long. Cashing in his company stock and playing the market for high stakes was too risky. Selling his town house would leave him with an impossibly long commute since he could only consider property at the northern end of the lake. No, his best hope--probably his only hope--had to be the performance bonus discussed at the last board meeting.

This familiar chain of reasoning, its links smooth from repeated rattling, led Hunter's attention back to the papers on his desk. He bent over them again, but this time without frowning.

The afternoon meeting of the senior management team was held in the boardroom, a light, low-ceilinged room with a wall-length window at one end. This window looked out over a parkway that ran through heavily wooded suburbs and past the commercial plaza where Linneker Pharmaceuticals was based. Two miles north, over the tops of the trees, one could see the lower end of the lake, a broad blue finger pointing due south.

Hunter sat at the head of the polished table, his back to the window, and listened to Sally Makin give reports on various research projects. More than once his thoughts drifted north, through the window and over the trees to the single-story, brown shingle house he had viewed the previous evening. The new dock and the small boathouse were definitely pluses. So was the modernized kitchen. But he suspected that people would think it dark inside. And he couldn't help feeling that a single-storey would be an under achievement. Whenever Hunter imagined showing family and friends around his new place, the mental video clip usually included a shot of him ushering the party down a broad staircase--he apologizing smugly for the improvements not yet finished, they cooing over the effect of the morning sun coming through the skylights. There was something disappointing about the brown house; it was just a little ungrand . . .

He became aware that Makin had moved on to the Cardaleve project and he reattached his attention. She kept her report brief and non-technical. The surprising success of the placebo was noted but not dwelt upon, and she ended her presentation

confidently touting the potential value of the drug to both those who sold it and those who swallowed it.

“Questions?” said Hunter, looking around the table.

“Yeah, I have a question,” said Ken Salmon, the chief legal reference. “How do you explain the fact that the placebo did better than the drug we've so far spent over five million dollars developing?”

Hunter nodded his approval of the question. Half a dozen heads turned back towards Makin, chins slightly tilted, eyebrows slightly raised.

“Yes, Bob asked me that earlier,” she answered, “and as I told him, we don't really have an explanation. But we don't see that it matters. What matters is whether Cardaleve is safe and effective. We're satisfied it's both.”

Salmon, shiny-pated, sideburned, suntanned, loud-tied, spread his hands above the table, palms up, as if supporting a huge tray.

“Great! So how about we call the placebo Cardaleve, bottle it, sell it for ten dollars a pop, and raise our profit margin three thousand percent?”

There was general laughter. Salmon held his hands and his grin theatrically fixed as he looked up and down the table, enjoying the success of his joke. Makin shrugged but made no reply. Hunter made as if to laugh with everyone else but managed only a tight smile before glancing at Salmon and saying, “Is that such an obviously absurd idea?”

The remaining titters died away leaving a few seconds of confused silence.

“Well, yes,” answered Salmon. “It's a ridiculous idea.”

“Why?”

“For one thing, people aren't going to pay good money for a pill that doesn't do anything.”

“That's not true,” said Hunter. “How about echinacea, melatonin, ginkgo biloba . . .”

“OK, fair point,” Salmon conceded, “but . . .”

“Anyway,” continued Hunter, “the placebo *does* do something. It relieves heartburn.”

“Yes, but it's not supposed to.”

“So?”

“So you can't go around peddling potions without knowing how they work.”

“That's not true either,” said Hunter. “Lots of treatments have been introduced without a full understanding of how they work--electro-shock therapy for depression, nitroglycerin for chest pain, aspirin for just about everything . . . If we insisted on complete insight into how a remedy works before we let anyone try it, we'd still be in the dark ages practicing bloodletting.”

“Actually, we wouldn't,” said Donna Tate, head of finance. “They didn't understand how bloodletting worked either.”

“Well that's because it *didn't* work,” Salmon pointed out. “Look at Robin Hood.”

“Robin Hood didn't die because of bloodletting not working,” retorted Tate. “He was murdered. They left the bandages too loose.”

Hunter rapped his pen on the table. “Let's leave Robin Hood out of it. The question is: Why shouldn't we consider marketing the placebo as a heartburn reliever?”

Salmon sank back into his seat with a sigh, indicating that it was someone else's turn to sally forth as the champion of common sense.

“Just what are you suggesting, Bob?” asked Cameron Baynes, head of Human Resources. “Is your idea that we put the placebo in bottles, call it Cardaleve, and sell it cheap?”

“Well I don't think we should give it away. We are, after all, a business. We have overheads, R and D costs, shareholders, and so on. It's part of good business to take advantage of opportunities when they come along.” Hunter spoke slowly. The carefulness of his speech was intended to communicate the reasonableness of his idea. The others did not appear reassured.

“You're saying we should sell it for a lot, then?”

Hunter rocked his head slightly and made a nondescript hand gesture. “I'm saying, for instance, that even if we market something other than Cardaleve, we're entitled to compensate ourselves fully for having developed and tested Cardaleve.”

He turned to Donna Tate. “Donna, can you give us some idea of the difference in returns we could expect between the two options? Ballpark figures will do.”

The financier pulled her glasses down from their perch in her blonde bouffant, tapped at a calculator with the blunt end of her pen, and scribbled some figures on a notepad.

“Essentially, it comes down to this. Cardaleve costs a dollar forty per two hundred milligram tablet to produce; the placebo costs three cents per tablet. Given our current sales projections, if we sell them at the same wholesale price, that translates into a difference in profits of about two hundred and fifty million dollars. Per year.”

This calculation prompted a chorus of surprised little gutturals. Hunter thought about constructing a sentence around the word “bonus” but decided it wasn't necessary. He knew he could rely on everyone present making this connection for themselves.

“And what do you write on the bottle under 'Active Ingredients'?” demanded Salmon, returning to the fray.

“I'm not sure about that,” said Hunter.

“Are you not sure because you're thinking about not telling the truth or because we don't know how the thing works?”

“I'm not sure.”

Salmon snorted theatrically and again sank back into his chair, this time with the air of a courtroom attorney who has thoroughly skewered his witness. There was an awkward silence.

“Someone explain this to me,” said Hunter. “How does it make sense to put out one drug to do a particular job, when we have another drug that does the same thing, only better and is much cheaper to make?”

“I dunno Bob,” said Salmon. “There may be something in what you're saying. But as the resident legal eagle I'd be a lot happier if we understood why the placebo works. If we do what you're suggesting and a problem crops up, I don't want to be the guy up there on the witness stand saying, 'No yer honor, we didn't really have a clue how it worked but it seemed to put the lead in some people's pencil so we thought what the hell . . . We're really, really sorry about the birth defects.’”

“With respect, Ken, I see the risk here as extraordinarily small. We're not, after all, talking about cutting corners on brake materials for pickup trucks. What we're talking about, when it comes right down to it, is feeding people sugar lumps!”

A few people chuckled. Hunter felt encouraged. If he could put Salmon's voice in the wilderness, he'd probably get his way. Salmon was the only one there who rivaled him in years spent with the company.

Cameron Baynes removed his glasses and rubbed his eyes. "I'm not comfortable with the idea of misleading the customer. Forgive me if I sound Sunday Schoolish, but doesn't it say somewhere, 'Thou shalt not lie'?"

"Where's it say that?" asked Dave McKenzie, head of marketing.

"How about the ten commandments?"

"Not according to my bible," McKenzie replied. "There's the one about not bearing false witness, but I think that has to do with not giving false testimony in court."

"So it could become relevant at some point," remarked Salmon drily.

"I'm sorry," said Hunter, "but I don't see why we should be having serious moral qualms here. Yes, we'd be keeping afloat a small and harmless illusion for the patient's own good. But our guiding principle would still be to promote the good of the greatest number."

"The greatest number in this case being number one," muttered Salmon.

"Maybe," said Baynes, "we should run a few more tests before making a final decision?"

"We can do that," said Makin, "though I doubt we'll discover anything new."

"Perhaps not, but at least we'll be less open to a charge of being irresponsible. And while we're at it, why not consult a professional ethicist."

"A what?" said Hunter.

"You know, like that guy who writes in the *New York Times* every Sunday."

Hunter held up a hand like a policeman holding back traffic. "I don't think we want to start roping journalists into this business."

"It doesn't have to be a journalist," said McKenzie. "My brother just got his Ph.D. in philosophy from Duke. I bet he'd be willing to give us an ethical consultation, especially if we were paying a decent fee."

Eyes turned back towards Hunter. A brief silence ensued. Sensing the lingering disquiet over his proposal, he decided it would be prudent to take his foot off the pedal for the time being by going along with Baynes' suggestions.

“OK, he said, “that sounds reasonable.”

A little ripple of relief went around the table. Bodies relaxed in their seats. Fingers stopped fidgeting with pens. Disappointed, but not discouraged, Hunter wrapped up the meeting. McKenzie was commissioned to contact the ethical expert, Makin to probe more deeply into the riddle of the placebo. A final decision was deferred pending further pharmaceutical research and philosophical consultation.

A month later, Sally Makin’s blue folder was once again lying open on Hunter’s desk, her finger once again pointing to the enigmatic trajectories of certain lines on a graph.

“Let me get this straight,” said Hunter. “You’re saying that the success rate for Cardaleve has dropped another two percentage points in the past three weeks.

“Right.”

“And that the placebo is three points more successful when people are told they're taking Cardaleve than when they're just told they're taking some unspecified heartburn medication?”

“Right.”

“And you have no explanation?”

“Ah, I do have a hypothesis regarding the first finding, though it's a bit speculative. I think it's possible that Cardaleve has a peculiar psychological side effect.”

“Which is . . . ?”

“Which is to make people skeptical.”

Hunter's eyebrows reached for his hairline. “It makes people skeptical?”

“I know it sounds a bit loopy, but it would explain some stuff. It’s well established that if a patient expects a treatment to work, there’s more chance that it will. Sick optimists have a higher recovery rate than sick pessimists. That’s probably why those who are told they’re getting Cardaleve rather than some generic cure do better. They have more confidence in the treatment. Thinking about this, it occurred to me that perhaps the people taking Cardaleve were losing confidence in it and, what’s more, that their loss of confidence *was an effect of the drug itself.*”

“OK. I think I follow. Have you tested the idea?”

“As it happens we did devise a little experiment to see if there was anything to it. We didn't want all the bureaucratic hassle of getting approval for research on human subjects, so we used ourselves as the guinea pigs--the research personnel, I mean. There are fourteen of us. Tim Inkatheri and myself ran the tests. Everyone else agreed to be a guinea pig.”

“So what did you do?”

“We had a wine-tasting party.”

“A wine-tasting party!” Hunter wrinkled his nose.

“Strictly in the interests of science, you understand. For three days everyone took a pill, either Cardaleve or the placebo; only Tim and I knew who was getting what. Then after work last Thursday we had a wine and pizza party where we served up, with a bit of fanfare, what I told everyone was a top of the line, award-winning champagne. I even read out a rave review from *Food and Wine*. Then, later on, we had the subjects fill out questionnaires. They had to rate the champagne and say whether they thought it deserved all the accolades.”

“And you discovered . . .?” Hunter sounded like someone who had overdosed on deep skepticism inducers.

“Unfortunately, we discovered very little. You see, we handed out the questionnaires rather late on in the proceedings, and we forgot to take into account the fact that alcohol, consumed in sufficient quantities, has what you might call an anti-skeptical effect. You know how it is: strangers become best friends; the Cubs are going all the way; Nixon was misunderstood . . .”

“Don't tell me,” said Hunter, wearily. “By the end of the evening the whole team was standing on chairs toasting your champagne as the veritable reincarnation of Olympian nectar.”

“Something like that, only they weren't using difficult words like “veritable”--and they weren't all standing. Still, we're trained scientists. We accept that not every experiment will be conclusive. There are successes and there are failures.”

“I'm sure the whole team was devastated by this particular failure.”

Makin nodded. “Some of them didn't even show up the next day. Inconvenient, since we need to do more tests.

“Oh, right, you'll need to do further experiments,” said Hunter witheringly. “That's the spirit! Straight back in the saddle! Maybe you should take the team on a package holiday to Bermuda and see if the beaches and margaritas match their expectations.”

Makin gave her tightlipped smile, picked up her folder and turned to leave. A thought occurred to Hunter. “By the way, who paid for the champagne?”

“Oh, it came out of R and D Miscellaneous. It was research, after all.”

His tone became plaintive. “And was it really top of the line?”

Makin looked surprised at the question. “Well of course. It had to be. Watching people complain about a cheap vino collapso wouldn't tell us anything, would it?”

She strode off, shaking her head at the naiveté of businessmen untrained in the scientific method.

Three weeks later on a sunny spring morning the senior management group gathered again in the boardroom. Hunter was determined to see his proposal adopted but felt the need to proceed carefully. In theory, he could simply tell the others what was going to happen. He was, after all, the CEO; and Linneker Pharmaceuticals was not a democratic organization. But he hadn't been CEO for long, and a culture of consensus was in place. So to insist on getting his own way in the face of serious opposition would be, if not impossible, at least uncomfortable. It would also expose him to criticism by the Board of Directors should things go wrong.

The meeting began with Sally Makin summarizing her recent Cardaleve-related research; on this occasion she focused on results rather than methodology. Donna Tate then reviewed, in case anyone had forgotten, the financial side of the equation, after which Hunter asked Dave McKenzie to report on the ethical consultation.

McKenzie held up a thick wad of stapled pages covered with dense type. “The expert we consulted is a guy named Simon Vericraft, recent Ph.D. in philosophy from Duke, recommended by my brother. Apparently this is right up his street: he wrote a doctoral thesis on Plato's concept of the noble lie. I e-mailed him about our problem and this tome here is his response. To be honest, it's pretty tedious reading. Essentially, what he says is that bottling the placebo as Cardaleve is perfectly fine according to some

ethical theories and totally wrong according to others. There's a lot of background stuff which doesn't seem all that relevant, but eventually he gets to the point.”

He leafed through the pages scanning rapidly. “Here we are. Is it OK to tell a small lie to the few for the good of the many, like when the Nazi coast guard asks you if you've seen a boatload of Jewish refugees? Apparently that sort of problem's quite common. So is the problem of whether it's OK to lie to someone not for the greater good but for their own good, like when you tell a guy on his deathbed that his wife's doing fine even though she's just been hit by a truck. But our particular problem's a bit tricky, he says, since we're asking if it's OK to lie to the many to benefit a few. Still, boiled down to basics, he says the main authorities cut the deck something like this: Plato--yes; Aristotle--no; Aquinas--depends; Hobbes--yes; Hume--yes; Kant--no; Mill--depends; Nietzsche--yes; Wittgenstein--unanswerable; Sartre--doesn't matter.

“Does he give his own view?” asked Salmon.

“Er--yeah, towards the end.” McKenzie turned a couple of pages and squinted at the small type. “What bothers him, he says, isn't the false label on the bottle but the profit margin on the placebo. He says if we really want to benefit the greatest number, why not sell the placebo as Cardaleve but sell it dirt cheap?”

Hunter smiled condescendingly. “There's your typical ivory-towered idealism--all noble principles and no grasp of real life complexities like R and D costs, capital overheads, shareholder pressures and the rest of it. Still, he may have a point. I guess we could knock five percent off the price in virtue of the lower production costs.”

Hunter decided the time was right to make his big pitch. He spoke in measured tones, hoping to give his words their full moral weight.

“So,” he said, “there you have it. We have to make a decision; but given everything we've heard, I don't think that should be too difficult. We have two sets of obligations. We're obliged to give our shareholders the best return we can on their investment--in other words, to maximize profits. I think it's pretty clear which course of action does that. Our other obligation is to our customers--the people who rely on our products to alleviate their suffering. What best serves them? Well, the research findings are unambiguous: more people experience relief from heartburn when they take the placebo than when they take Cardaleve *especially if they think they're getting Cardaleve.*

So, our obligations happily converge on a single course--one that, as we've just heard, would be sanctioned by leading moral authorities going all the way back to Plato."

Hunter drew his conclusion leaning forward over the table, thumb and forefinger pinched together as if grasping an imaginary nettle. True, he could not, even at this moment, keep his thoughts from flitting to the four bedroomed cape cod with sixteen hundred feet of lake frontage and a small apple orchard--the most appealing of the properties he'd been reading about the night before. But that didn't show, and it didn't matter. The pitch was good and sailed over the plate. Around the table, lower lips were slightly protruded, shoulders were shrugged, and eyebrows were held high. Tacit agreement filled the room.

Hunter returned to his office euphoric. It was going to happen: big profits; big bonus; big house by the lake. His skin tingled; his whole body felt light. The euphoria lasted through lunch and persisted until two thirty-one precisely, which was when Mel Klingensmith, Chairman of the Board of Directors, walked into his office and told him he was fired.

Hunter stared at him. His stomach felt as if it had just been quickly knotted and pulled tight. "What do you mean, I'm finished? Why? What's going on?"

Klingensmith shook his head in a way that expressed both disbelief and disappointment. He was a big, overweight man with the sort of bushy black eyebrows that, by some combination of natural selection and the class war, belong only to people who have authority--real, intellectual, or moral. Klingensmith had all three.

"Come on, Bob. You must know why. This Cardaleve scam you were planning to pull. What were you thinking of?"

A twist and hitch was added to the knot in Hunter's stomach. "How do you even know about that? I haven't discussed it with you yet."

"You were planning to?"

"Of course."

"Bob, the time to have discussed this with me was about two months ago, as you well know. And I think we both know how long that conversation would have been."

“You haven’t answered. How do you know?” Hunter was not usually so blunt with Klingensmith, but he was speaking with the abandon of the condemned man.

Klingensmith was silent for a few moments. He sighed through his nose. “We've known about it ever since you first put the idea to the management group.”

Hunter stared at him, uncomprehendingly.

“Look, Bob, I'm not interested in going into details. Let's just say that we became aware of what you were proposing early on and decided to give you the benefit of the doubt by letting you have plenty of slack--which, unfortunately, you proceeded to hang yourself with.”

“Who told you?”

“We were told in confidence.”

“OK, who's replacing me?”

Klingensmith looked away momentarily before speaking. “Ken Salmon has agreed to serve as acting CEO for the time being.”

“Salmon!” Hunter hissed. “So he's behind this?”

Klingensmith said nothing. Hunter left his chair and began pacing around the office. Arriving back behind his desk he turned and faced Klingensmith.

“OK. Let's go back to first things. Exactly why am I being fired? What am I supposed to have done wrong?”

“Come on. You were about to market a product on false pretenses. That's contrary to company policy. It's unethical. And it's illegal.”

“Hang on a minute. Before you start jumping to conclusions, don't you think you ought to hear the reasons behind the decision we took? Are you familiar with our research findings, or with the fact that we consulted a professional ethicist . . . ?”

Klingensmith shook his head. “Even if the data was correct, you had no business . . .”

“What do you mean, 'even if the data was correct'? It *is* correct.”

“No, Bob, it's not. I'm sorry. At first, to be sure, Sally Makin believed the placebo effect was for real. But later she discovered that the data was corrupt.”

The knot in Hunter's stomach began to writhe as if it were made out of snakes. “This is crazy! If she knew the data was corrupt, why didn't she tell me?”

“Look, Bob. When you first learned of the placebo effect you immediately proposed what, for want of a better term, we have to call a scam. Right then, a big question mark appeared next to your judgment and your leadership of the company. It was decided to run a small experiment of our own to see how far you'd be willing to take things. We asked Sally Makin to help by encouraging you to believe in the greater efficacy of the placebo. This was a chance, you understand, for us to put your managerial abilities to the test, to see just what kind of person we had in the driving seat. Unfortunately, you flunked the test.”

"I can't believe it. You ran a sting operation! You lied to me!"

Klingensmith's eyebrows twitched. "I wouldn't put it quite like that. Let's say that for a short time, to promote the greater good, we kept afloat a small and harmless illusion."

Had Bob Hunter been raised in a less genteel environment, he would probably have spat on the carpet. And if he were not so chary of bodily injury, he might have kicked the filing cabinet. More satisfying than either would have been to punch Klingensmith in the middle of his ample stomach. But these were not the conventional ways of expressing disgust in corporate America, and Bob Hunter, even in extremis, was thoroughly conventional. He did not spit, kick, punch, stamp, wail, rend his suit, or pull clumps from his beard. Had sackcloth been to hand, he would not have donned it. Had ashes been supplied, he would not have poured them over his head. So, lacking a cultural heritage that countenanced histrionics, he simply stood and shook his head in disbelief as Klingensmith, on his way to the door, placed a prepared but as yet unsigned letter of resignation on the large desk--a desk which, Hunter was reminded, should be emptied of personal items by four o'clock that afternoon.

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