



## Trying To Fix It

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DIEDERIK STAPEL<sup>1</sup>

1. Tillburg, The Netherlands

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CORRESPONDENCE:  
[info@diederikstapel.com](mailto:info@diederikstapel.com)

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Early September 2011. I still have time. I'm driving my car through the Netherlands to try and fix things. I like driving; always have. But I have no clue where I'm going. I'm trying to think. I can still put things straight. I made up data, I published papers with bogus empirical results, but if I can just keep my act together, I can argue my way out. I can still say it was all true. I can still convince myself it actually was all real. I still have time. Time to put everything in place.

I have to be prepared for ugly questions, though. They're on to me. They're on my back. They've checked up on my methods and studied my data files, and they think (they know!) that things don't add up. They're right. The results are, as the saying goes, too good to be true. I created a world that doesn't exist. I presented beauty where there is only ugliness. How can I get away with this? How solid is my story, really? How solid can I make it? The university's provost wants to talk to me. Tomorrow. He is worried. "I am concerned," is how he puts it. He has some questions for me.

What questions should I expect? Will he ask about the experiment I did just before the summer break? I started doing the research in June. (When in June, exactly?) The end of June. (But that was the end of the academic year; were there still enough students around?) I'm impatient and I like to have everything under control, so I did everything myself. (But you're the dean, for goodness' sake!) I went out on the road. (How did you find time for that?) I handed out questionnaires in Zwolle and Groningen. (Why did you choose those places?) I asked people to help, at the train station and on college campuses. (And they said yes? Just like that, with no reward?) Well, most of them were happy to do it to help the cause of science, but I paid some of them. (How much? Where did you get the money from?) Then, when they'd filled in their questionnaire, I asked them to help me find some more participants. (Why would they go along with that?) I paid them for that. (How much?) A buck or so per questionnaire. (And you thought this was OK?) The questionnaires were very short, so they didn't take long to fill in. (How short? Did everyone take the same time?) I guess the whole thing took about five to seven minutes per person. (Times a hundred questionnaires?) I've done this kind of flash-mob research before. (When? Where?) It's kind of borderline, ethics-wise, but it's quick and easy, and I get a real kick out of it when it works. (You don't say.) Not least because it's so edgy. (Do you enjoy taking unnecessary professional risks?) Then I went back to my car and entered all the data into my computer. (In your car? What was the hurry?) I always want to find out what happened, whether or not the study worked. I get so excited that I can't wait. (And what happened to the questionnaires?) I don't like having piles of paper lying around, so I threw them away. (Where?) In a dumpster that I found by the side of the road. (Where? Which street? Do you think the dumpster has been emptied since then?)

That's what I did. That's how it was. (Do you even believe this yourself?) It's unorthodox, I know. It's not the kosher way to do things. But that's just how I roll. (That's just how you roll?) That's just how I roll.

### FICTION FACES REALITY

I can't drive home now. Not just yet. First I need to go to Utrecht. To save my *Science* paper. I'm sure they're going to ask questions about that too. When a train station hasn't been cleaned for a while, train travelers will be more likely to use stereotypes in their behavior towards others than when the station looks clean and safe. Sure. Too good to be true. Too perfect. Too clean.

It's around six p.m. By now the evening rush hour is at its height, and it takes me ages to reach the center of town. I park my car at the upscale Karel V hotel opposite the train station. My head is thumping and my hands are shaking. I leave my coat in the car; this has to be done quickly. I get out of the car, close the door behind me, make my way quickly out of the hotel's garage, and cross the street to the station. Well, that's the idea, anyway, but the sign says "Don't Walk" and two cars have to screech to a halt to avoid hitting me. A couple of other pedestrians stare in concern at the crazy guy. A couple of minutes later I'm standing, out of breath, in the main hall of the station. Looking around, I see nothing but people, masses of people everywhere, and I can't get my bearings. Still, I have to work out how and where it happened here. I have to try to imagine what it was like. The first time was in March 2010, unless it was April. The cleaning staff at the Utrecht train station were on strike for higher pay and better conditions. The station hadn't been cleaned for days, while the constant stream of travelers continued undiminished. Pretty soon, the whole place was a real mess. And that made it the perfect setting for a study to test the idea that people are more inclined to think in stereotypes in a messy, chaotic environment than in an orderly, clean one. When surrounded by dirt and disorder, people are more likely to believe that Muslims are terrorists, Brazilians are sexy, British people are polite, New Yorkers are pushy, women are emotional, and the Irish are drunks, than in a place which is clean and looks welcoming. Stereotypes are mental detergents that wash away the pollution of uncertainty. People like to pigeonhole others, because it makes this messy, chaotic world seem neat and tidy. Stereotypes help us to understand and predict people's behavior. Once you know that a person is from New York, you understand why he's always playing with his iPhone (because being from New York means he's impatient), but you also know that there's more chance he'll want to talk to you than if he was from some small town (because he's probably an extrovert).

I'd imagined it like this. Somewhere around the edge of the main station hall we had set up a row of five chairs. One of our research assistants sat on the first chair. We asked passing train travelers whether they would answer a short questionnaire for our research. The questions asked them to judge various groups of people according to different character traits (efficient, precise, cool, criminal, conservative, etc). When someone agreed to take part, we asked them to sit in one of the chairs to fill the form. Our research question was about not only how the travelers would fill in the form, but also which chair they would sit on. We predicted that they would use more stereotypes in their answers while the cleaners were on strike and everything was in a mess, than when the strike was over and the station had been cleaned up. If people are asked to judge others while sitting in a dirty environment, they'll be more likely to reach for the mental detergent. Furthermore, we expected that people's use of stereotypes to provide them with a simplified, orderly, cleaned-up view of the world (the French are snooty; the Japanese are quiet) would depend not only on how clean or messy the environment was, but also on how far they chose to sit from the research assistant at the end of the row of chairs. This was the most subtle part of the experiment. The idea was to have two different people presenting the forms: one Black and one White. We thought that when approached by a Black research assistant in a messy station, the travelers (who were mostly White; Black people are very much a minority in the Netherlands) would tend to sit further away than if the assistant were White or the station were clean and tidy. Disorder increases the tendency to stereotype and discriminate, so that in a disorderly environment people will be more inclined to distance themselves from "immigrants," "foreigners," or "strangers" than in more appealing surroundings.

I'm getting a bad feeling in my stomach. I look around the vast hall of the station, trying to find a good

spot. I turn and look and turn and look. I run to a different part of the hall. Turn and look and turn and look. People everywhere, pressing ahead, not looking around. It's the rush hour. This is completely different from how I'd imagined it. What an idiot! I can't find anywhere we could have put a row of five chairs. How had I set it up? How had we done the study? I walk over to the first track, and back to the last; to the left, to the right; past the supermarket and Burger King on one side of the massive hall, and past the newsstand and a cafe on the other. How is this possible? There isn't a good spot to do the research anywhere. There's nowhere you could put a row of five chairs anywhere along the side of the hall, against the wall or by a window. You could maybe fit them right in the middle of the hall, but that would attract too much attention. You can't expect people to take their time and concentrate on filling in a form when they're sitting right in the middle of the busy hall, with all those people milling about them. No way.

I had imagined something that simply wasn't possible. There's nowhere in the station with ten feet of space in front of a wall or window where the study could have been done in the way I'd described it. Not now, not back in March 2010 during the strike, and not the next month when everything was clean again. Why hadn't I thought of that before? Why hadn't I at least come here to check? How could I have been so sloppy? I've got a thumping headache. With my right hand I push against my forehead to try and ease the pain, and with my left I take my glasses off for a moment. When I put them back on, I see someone I know approaching in the distance. A short man, a nice, very erudite guy.. A professor. He lives near me and he's always keen to chat. I'm not sure if he's seen me, but I can't afford to take that chance. I look down at the ground as he approaches. Then, pretending I haven't seen him, I look thoughtfully at the ceiling for a moment, then turn and walk off. What would I have been able to say to him? What am I doing here? Research?

Back at the hotel where I parked my car, I go to the front desk to pay for the use of the garage. The clerk asks if I'm here for one of the seminars the hotel is hosting today, which would entitle me to a discount. I hesitate. Maybe. It might also explain why I was here. I look at the monitor above the desk showing the day's events. The delegates at the various events are financial advisors, lawyers, historians, medical specialists. "No."

Sitting in the car, I retrieve my notepad and check what I've written today. All I can see is a bunch of squiggles written in an barely decipherable scrawl. Did I write that? Under the map reading light I can make out arrows, exclamation points, times, distances, numbers of participants, notes about research settings, questions, answers, remarks, ideas, solutions. A few half- and whole truths, but mostly lies. Some vaguely white, but most jet black. I check the rearview mirror, start the engine, loop round the bend at the end of the car park, and insert the card to open the barrier. I stop for a moment, remove my glasses, then put them back on. I drive straight home. It's over. I'm done. I'll confess. I'll be fired. For years, I had been poisoning myself; slowly, inexorably and with incredible precision. First in tiny portions and then eventually with huge, giant helpings. Everything that I had poured my heart and soul into over the last few years, I had proceeded systematically to destroy with a web of lies, deceit, stories, invention, fantasy and huge, profound, gigantic untruths.

### **THEY KNOW**

Late August 2011. A week earlier, Maarten, who chairs the social psychology department, had confronted me with the question I had been dreading for years. "Diederik, I have to ask you: have you been faking your data?" Of course, I denied it flat-out. It was a Friday evening, and we were sitting in Maarten's bright, modern living room. I went round to his house after an evening out with friends, watching the local pro soccer team play yet another mediocre game. Maarten's house and mine are a stone's throw from each other. We've become good friends, and we like to meet up and talk. Our kids go to the same school.

Maarten had sent me a text message earlier that evening to ask if I would come over: "It's important." While watching the soccer match I hadn't thought any more about it, but as we left the stadium I checked my phone and saw that he had tried to contact me again: "Are you coming?", followed by

"???" It sounded like something urgent. What could be the problem? Maarten had been divorced for a few years and his girlfriend had recently moved in with him. Maybe there was a problem between them, or it had upset his children. Maybe he wanted to talk about it and get some friendly advice? I'm always happy to lend an ear. But I was way off base.

As soon as I entered his house, he came straight to the point. "How are you?" I asked, as he stood in the kitchen, making a cup of tea. "This is not good, Diederik. Not good at all." He had just returned from a conference in London where a group of young researchers from Tilburg had taken him to one side one evening after dinner, and told him about their strong suspicions that I'd been playing fast and loose with my research for some time. Nobody knew where I was getting my data from. Had I been making it all up? I tried to act tough and pretended to be shocked at these terrible accusations. I was nonchalant and dismissive. After all, if nobody's gossiping about your research, it's probably not very good. I asked him for whatever specific details he had and tried to counter them; after all, what evidence did they have?

But inside my head it was as if a group of shouting, screaming, yelling people had taken over. They wouldn't stop. The voices got louder. Who were these people? The researchers who had blown the whistle on me had clearly convinced Maarten that they were on to something, with a great deal of detailed evidence and not-so-wild accusations. He didn't want to believe it, but he didn't have much of a choice. He'd spoken to a young PhD student with whom I had coauthored an article that we'd managed to get accepted by one of the top international journals. It had taken two years of intensive research, and lots of writing and rewriting. But now she had lost all sense of pride in her achievement because she didn't believe in the data that I'd given her. Maarten told me that the gossip about me was spreading in academic circles across the country; from now on, whenever I gave a presentation of my research, there were going to be a lot of raised eyebrows.

How much did they know? Everything? Impossible. Nobody would believe everything, surely? Who believes everything? Did I still have a chance? This was too big and too awful and too bizarre; too big to fail, as they used to say ironically about overexposed banks. No? No, this was massive and unstoppable. The media would have a feeding frenzy. Radio, TV, Internet, newspapers, magazines, books, annual reports, top-ten lists. News around the world. The Lying Dutchman. Lord of the Lies. A scientific con artist.

#### **AN EXAMPLE OF WHAT I DID**

October 2010. I prefer to do it at home, late in the evening, in fact at the beginning of the night, when everybody else is asleep. I make some tea, put my laptop on the kitchen table, get my notebook from my rucksack, take my fountain pen out and make a careful list of all the results and effects I need to create for the study I'm doing. Nice, simple tables with the results I expect based on extensive reading, theorizing, and thinking. Tables of what the results should be. Simple, elegant, comprehensible. Next I start to enter the data, column by column, row by row. I try to imagine how the participants' answers to my questionnaire would look. What are some reasonable answers that we might expect? 3, 4, 6, 7, 8, 4, 5, 3, 5, 6, 7, 8, 5, 4, 3, 3, 2. When I am ready, I run some quick preliminary analyses. Often these don't show what I was expecting, so it's back to the matrix to change some things. 4, 6, 7, 5, 4, 7, 8, 2, 4, 4, 6, 5, 6, 7, 8, 5, 4. Again and again, until the analyses come up with the results I'm looking for. That is, until the data show what seems reasonable and logical. I work as fast as possible. I am sweating. It is a terrible, nauseating experience that I want to be over as quickly as possible. I want to stop, but I can't. I want to throw up, but I can't. Let it be over with. I want to find what I'm looking for, I want answers, I want closure. I want clarity. I want to get results that are publishable and show something important. I don't want to be a loser. I don't want to feel left out. I want to be part of the scientific community. Why? Real scientists do not do this. Obviously, I do not fit in.

#### **TWO REASONS WHY I DID IT, AND SOME MORE**

February 2012. I'm driving with my mother through the countryside. She's still looking for answers for why I did what I did-just one would do, for now anyway-but that's not why I'm here today. We're on the

way to the hospital in Maastricht, where my father was admitted a few days ago. We take the pretty way along the back roads, driving past big fields with long rows of fruit trees. It's wintertime. The trees are bare and small, supported by poles and wires so that they grow just the right way, so that they not only produce as many apples and pears as possible, but also that the fruits can be picked with minimal effort. Not a single tree is allowed to grow the way it wants to.

"Do you see that?" says my mother, surprisingly forcefully. "They're trapped. They can't go anywhere."

I look out of the driver's window. Every field contains the same rows of neat trees, all propped and wired up, all the same distance apart, all the same height. I look at my mother. Although she's lived here for twenty-five years and drives this way every day, she always seems to find something new. Even if nothing changes, she sees something different each time.

*It takes strong legs to carry the weight of reality* My legs were too weak. I slipped to the floor, while others-maybe wobbling, maybe with a stick to lean on-managed to stay upright. I wanted to do everything, to be good at everything. I wasn't content with my averageness; I shut myself away, suppressed my emotions, pushed my morality to one side, and got drunk on success and the desire for answers and solutions.

I've been exposed as a fraud. But it's a double revelation: at the same time, I've torn away my own illusory truth with which I'd surrounded myself. Yet, in doing so I've also trashed the truth of "situationism" that I cherished in social psychology. I'm the one to blame, not the situation. I was the one who made up experiments and falsified data; it wasn't the environment I worked in that did it.

I can demonstrate, philosophically, that the whole concept of "personality" is meaningless. I can show you any number of pieces of research to prove that personality tests are terrible predictors of specific behavior (and there's no other kind of behavior). It's no trouble at all to find hundreds of studies showing that what people do is far better explained by the situation that they're in, than by their so-called personality or by the bag of genes they've carried around with them since birth, but in the end I alone did what I did. I'm not the only fraudster in science, I'm not the only fraudster in psychology, I'm not the only fraudster in social psychology, that's something I know for sure. But my fraud is mine alone, and nobody else's. If I want to understand my own stupidity, I have to learn from Gibson, the ecologist, not from the extreme situationists, my social-psychological heroes whom I worshipped for years. (Where are they now? Where are social psychology's situationist explanations of what has happened here? Where have all the situationist explanations of human behavior gone?)

What I did wrong happened in a specific environment. If the environment had been different, things would probably have turned out differently. If the cookie jar had had a lid, and hadn't been placed deliberately on the table in front of me each morning, I would probably have avoided temptation better. But I-not somebody else, not some "non-I", not a negation of myself-couldn't resist. I, me, always me. Other people, in the same situation and with the same cookie jar in front of them, seem to be able to avoid succumbing, or at least to succumb less badly, less often, less blatantly, less stupidly.

The special interaction between *me* and *my* environment had a unique chemistry, which slowly but surely became more dangerous, more toxic, more complicated. And that is why it-or I-can't be explained away with a couple of glib theories, sound bites, or one-line summaries. You could come up with a whole list of possible explanations: a desire to achieve something, naked ambition, laziness, nihilism, a lust for power, status anxiety, the urge to find solutions, the need to feel whole, the pressure to "publish or perish", arrogance, emotional flakiness, loneliness, disappointment, low attention span, addiction to answers, etc etc, but-to use the jargon-none of these constructs will have sufficient explanatory power to reveal why I did what I did. You would need the whole set, and then a whole lot more. There are no simple, straightforward explanations. That would be too good to be true.

I'd spent years trying to find simpler and more concise explanations and theories to describe human behavior, but all the time that I'd been looking for order, structure, and simplicity, I'd been keeping my

eyes more and more tightly shut to reality until the inevitable happened, and I'd crashed and burned. And in so doing, I'd rather neatly proven the opposite of what I'd been looking for. If you want things to be extremely clear and simple, just close your eyes.

I saw the cookie jar, and everything became possible. Others didn't see it, or if they did, they thought about the problems and the risks, acted differently, were smarter, were wiser, felt the moral pressure to conform.

### **THE ROTTEN APPLE IN AN OTHERWISE PRISTINE FRUIT BOWL**

April 2012. Nobody likes to find a rotten apple in the middle of the fruit bowl. Before you know it, everything's ruined. Throw it out. And then ask: how could this have happened? Are all apples like this? What about pears? Maybe the fruit bowl needs to be emptied and given a thorough clean. But that means a lot of work and disruption. And if you take the bowl away, the fruit falls to the ground and before you know it, you've got apples and pears and kiwis rolling under the chairs. Then the whole system is open to question, and nobody feels safe any more. And you might discover that the fruit bowl has some nasty chips in the enamel, which can't be cleaned and are always going to be full of bacteria and bugs. Then what? What do you do if you discover that the system, the culture, the fruit bowl itself is what sets the rotting process in motion and keeps it going? Then you end up with chaos, and you can't control what might happen. It's a lot easier and safer to decide that there was just this one apple that was different from the others. That's the only way to keep control of things. The rotten apple got that way because it fell at some point, got a few bumps, and ended up bruised. The rotten apple comes from a different tree. The rotten apple is in fact a strange bastardization of an apple and a pear. The rotten apple isn't really an apple at all. The rotten apple is a hideous pile of crud, dredged up from the sewers. In comparison, every other piece of fruit, without exception, is a perfect specimen, with absolutely nothing wrong with it at all.

This is what social psychology taught me about the unremarkable nature of social exclusion: in the presence of something bad, the easiest and safest course of action is to pretend that the representative of that badness is "not one of us". If it's different from us, it can't be blamed on us. So we try to demonize badness, which lets us dehumanize it and throw it out like a piece of trash. This means we don't have to treat it like a human being any more; it also means that we don't have to wonder whether we, too, might be capable of being just as bad. The idea that evil might be innate to humans, rather than some kind of monster from outside, threatens the core of our belief in a just world. If to be evil is human nature, that means it's everywhere and can strike anybody at any time, not just bad people, but good people like you and me as well. Evil becomes a possibility for everyone. It's sitting at the table with you, and it goes to bed and falls asleep with you. Really? Wow. Scary. Please can we stop talking about this?

### **WHEN SCIENCE MOVES**

May 2012. Everyone is out. My wife is at her office, the children are at school. I'm vacuuming. It's one of the few things I enjoy right now. You have this plastic and steel tube, with a flat rectangular block at the end, which you wave around over the floor, doing something invisible that, shortly after, turns out to have been useful after all: the floor is clean, and all the dust and crumbs, which are individually invisible but make quite a mess when you put them all together, have been rounded up and removed by your magical arm movements.

I clean the whole house. When I've finished downstairs, I move upstairs. I do an extra good job in the spare room, because my mother-in-law is staying here tonight. I clean under the bed and the bedside table. I push the blue leather chair, which we were given by my parents some time in the last century, to one side.

When I try to vacuum behind the curtain that is meant to hide the ugly radiator and the rather grimy white wall, the end of the vacuum cleaner bumps into something large and flat, which moves a little. I put the hose down, pull the curtain aside, and remember that this is where I put the reproduction of the

*Annunciation of Mary* by Fra Angelico, with its beautiful thick wooden frame. I had this copy of the famous fresco from the monastery of San Marco in Florence hanging above my desk at work for years. When they let me sneak back onto campus to empty my office, late on a Monday evening a few days after I was fired, I took the huge frame down from the wall and hid it away here, behind the curtain of the spare room. Out of sight.

Mary sits on a wooden chair in an austere loggia with classical pillars. The garden is filled with cypress trees and white flowers. The angel who has come to tell Mary that God has chosen her to bring the Messiah to earth has beautiful, pastel-colored wings, but otherwise is remarkably understated and devoid of symbolism. It's as if the wings have been sewn on to her, just for a moment, and she could take them off whenever she wants to. The angel is an angel and Mary is Mary, but above all they're two people, leaning towards each other, sharing some important information in the silence of this garden. Wearing a sober, dark gown, Mary listens attentively to the message, which she knows that she can't do anything about. She looks ahead, a little surprised but perhaps also a little absent. It's as if she's trying, unsuccessfully, to make out what the angel's words mean for the way in which the rest of her life will unfold.

The *Annunciation of Mary* is the moment when the realm of heaven makes its appearance on earth. The spirit of God takes up its place, in a pure and perfect way, in Mary's lap. In Fra Angelico's early Renaissance style, this is depicted in a modest setting, without the usual blasts of trumpets, bolts of lightning, and other heavy symbolism. This *Annunciation* is an intimate discussion in a garden between two pious individuals who have no choice but to accept their roles, and to accept the logic of what is to come. The message is delivered, loud and clear, and then silence returns.

When I saw this fresco for the first time in the San Marco monastery in Florence, more than twenty years ago, at the top of the great wooden staircase that leads up from street level to the second floor, it made an enormous impact on me. I'd already seen it many times in photographs and knew that I would love it when I saw the real thing. And this was it—the real thing. My mother had a shoebox at home, containing a collection of postcards of various works of art depicting the Annunciation and its consequence, Mother Mary and Her Newborn Son. Every so often, generally near Christmas, the shoebox would come out and my mother would spend days going through her collection of cards and reproductions. Sometimes she would make a little exhibition of a few of them on the telephone table in the hall. The Annunciation that Fra Angelico had printed on the wall of the monastery, where he lived for many years, was for me by far the most beautiful. It showed, in the simplest and most intimate way, what happens when the higher plane meets the lower, both literally and figuratively. Literally, because that's the subject of the painting, and figuratively, because the way in which Fra Angelico set down this scene on a simple monastery wall is of an almost transcendent, divine beauty. Almost, because in every simple brushstroke, the cracks in the wall, the peeling paint, the primitive perspective, the unintentional white spots on Mary's blue gown, and some rather sloppy strokes in the background, it's clear that this is the work of a fallible human. Fra Angelico's fresco shows us, in different ways, that although people are capable of amazingly beautiful, almost god-like achievements, they remain grounded in ordinary daily existence on earth. Mary, the angel, Fra Angelico: they're all people, trying to understand and make space for the miraculous. That's why I find this picture so moving.

The world is chaotic; reality is a big complicated mess. The goal of science is to bring some clarity to this disorder, and provide some insight. When that works, it brings the same emotions as a painting like the *Annunciation*, and the perfection of heaven touches the broken incompleteness of earth, if only for a moment. Science moves people when it causes the turmoil of the world to stop briefly and brings a moment of peace. Science moves people when it catches the apparent lack of order in the world in its net of explanation and structure, bringing relief and understanding. Science moves people when it shows them how things are, how they were, how they will be, or if necessary—because that's often all that's needed—how they could be.

The world is moved, the rocks have turned to stone, the water has been washed away, the sun just

shines. That's what I dreamt of. That's what I couldn't find. That's what I lost.

**NOTE**

This essay is based on a series of slightly adapted and updated excerpts from Diederik Stapel's book, "Ontsporing," ("Derailment") with translation help of Nick Brown. Later this year, Stapel and Brown hope to publish the English version of the book.