

# Conclusions

A choir stands on the podium, ready to perform Mozart's Requiem in front of an expecting audience. The conductor enters the hall and finds his place in front of the singers. He turns to the audience and acknowledges their applause. Then he gives his full attention to the choir, and provides them the tone from which they are supposed to start. Normally, the singers would adopt that tone immediately, and get ready for the task ahead. This time is different, because most of them immediately sense that the tone the conductor has given them is far too deep. Instant unease spreads among the members of the choir. If they follow the instruction and start the performance from that tone, this will end badly. The conductor himself does not note the hesitancy and confusion among the singers. He is unaware that he has made a mistake. What happens in the next second or two will determine whether the performance goes well or not. One or more of the singers need to step forward and intervene in order to stop the chain of events set in motion by the conductor's mistake. If none of them does so, they will soon be in the middle of a painful Mozart performance, unpleasant to their own ears and to those of the audience. There is no time to think the matter

through, so either somebody makes an impulsive and discreet intervention, or they follow the conductor's directions into sour singing of Mozart.

This critical moment in a concert hall is a miniature example of how human fallibility can affect the quality of what people are trying to achieve together. Excellence in this performance depends on the detection of error, and an initiative to halt the course of events it sets in motion. Musicologist and conductor Mette Kaaby sees it as a nightmare situation, one that should not happen but may nevertheless be a reality. "A performance of Mozart's Requiem is all about collective precision. The choir and their conductor has put down hundreds of hours of practice together, to get the details exactly right. They are supposed to breathe, move, and sing together as one entity. The conductor needs to be sensitive to what happens among the choir members, and should be able to note signs among them that something is wrong. When that does not happen, it can create a musical crisis." (Kaaby, 2016).

The narrative about the conductor and the choir builds on an event that actually took place in a concert hall. What happened next was that one singer saved the day by discreetly correcting the tone from the conductor. The other singers started from that new tone instead, and the performance went well. There was a barrier system in place to stop the conductor's initial mistake from developing into a collective breakdown in the form of bad singing. The narrative also highlights other dimensions of coping with fallibility at work, as will emerge in the concluding reflections below.

This book has addressed how individuals, groups, and organizations can handle fallibility at work. It has highlighted how mistakes are not necessarily bad, since they can generate breakthroughs in innovative processes. Kaaby explains how there can be musical contexts where starting from a mishit tone can generate unexpected new dynamics among musicians. You open the wrong door, and explore what you find there, rather than turn around and insist on opening the door you were planning to open in the first place (Kaaby, 2016). Even in cases where mistakes lead to a bad outcome, there can be important learnings to

draw from them, insights into how it is possible to do things differently and better the next time.

These closing remarks will identify three main categories of understanding to which the book contributes. Bringing together narratives and theory has provided insights regarding fallibility at work and (1) self-understanding, (2) process understanding, and (3) ethical understanding.

## Self-Understanding

“Know yourself” is the Socratic motto introduced at the beginning of the book, and self-understanding emerges as a crucial component in preparing individuals for work setting where people make mistakes. It starts in childhood, where the scope of action boys and girls get to explore the world crucially affects their ability to cope with risk and adversity as adults. It matters how tight and wide the safety net is. If it is everywhere and protects the children from anything that might harm them, crucial learning opportunities are likely to be lost. Risky play is a key component in a stoical program to make children autonomous, resilient, and able to bounce back from failure.

The process of getting to know yourself can take an inward direction, where the aim is to figure out what really matters in your own life, but also an outward direction, where you take in the extent to which you depend upon other people to thrive and do well. The narratives in this book demonstrate how dependent we are on colleagues to take action and intervene in critical quality moments. They illustrate that we are relational beings, to a stronger degree than we perhaps are aware of and acknowledge. The choir narrative resembles those from aviation, health-care, and industry about events that are likely to end badly unless there is an initiative from someone close to the decision-maker. Individuals who do take such steps tend to see themselves as agents rather than pawns, as beings with a responsibility and a scope of action to make a positive difference to the ways things turn out. They do not see themselves as spectators, but rather as participators in the processes that

affect how things turn out. It also matters whether people consider themselves to have a growth mindset or one that is fixed and inflexible. Only the former approach a difficult situation, or even a failure, with the attitude that they can learn something from it.

Some of the narratives in this book are about ambitious individuals who want to demonstrate to themselves and their surroundings that they are independent and can manage difficult tasks on their own. The chapter on help discussed the reluctance some people—and men to a higher degree than women—have towards asking for support from others. We have seen that the actual social cost of asking for help tends to be lower than it is been perceived to be. The normal outcome may even be a social gain. You are likely to be considered more competent if you seek support in the process of performing a complex task, not less. These findings are important to convey to doctor students and others who enter working life with the assumption that they are supposed to tackle obstacles and deal with complexity on their own.

## Process Understanding

A common feature in the self-understanding of professionals who partake in the narratives in this book is that they grasp the extent to which they depend on the activities of other people to do well at work. It is an attitude towards self and others that also give direction to process understanding, in that it emphasizes teamwork and collaboration rather than separate individual efforts. We can define it further by appeal to three components of a team oriented, collaborative process understanding. Dealing constructively with fallibility depends on:

### A Barrier System

Reason's barrier model explains how mistakes can be detected and stopped from developing into accidents through the use of technological devices, rules and checklists, and human interventions. This book has highlighted the latter barrier element. People need to speak up when they

sense that something is wrong, or somebody has made a mistake. The psychological phenomena of the sunk-cost fallacy, the bystander effect, and confirmation fallacy can make them hesitate, and thus pose a threat to the robustness of the barrier system. In the choir narrative above, there can be a bystander effect, in that many singers are present, and each of them may think that they only have a minor responsibility to intervene, and doubt their own judgement and assume that maybe it is only they who perceive the tone to be too deep. A confirmation trap can also be in place, if the conductor has a good reputation and no previous history of giving misleading instructions. The singers will then tend to expect the next instructions he gives to be correct, and neglect information to the contrary.

## Countering Passivity

We have seen that a major process challenge in many work contexts is to counter passivity among those who are witnesses to mistakes. One obstacle is the well-documented phenomenon of omission bias, or of having a higher tolerance for bad outcomes of passive mistakes than for bad outcomes of active mistakes. A dominant assumption is that doing something that you should not have done is a more serious mistake than refraining from doing something that you should have done, even when the outcomes are more or less equally bad. When choir members experience that a conductor gives them the wrong tone, they can intervene at the risk of making an active mistake, or remain silent, at the risk of making a passive mistake. The most common approach in work settings appears to be the latter.

The chapter on Søbakken nursing home conveyed the need to balance risk and find a middle ground between moral hazard, where the decision-maker feels insulated against any negative consequences of his or her own actions, and moral paralysis, where the decision-maker feels that the entire burden of the negative consequences will fall on him or her. The latter phenomenon is under-discussed in research on risk-taking at work, even though it appears to affect work processes both in childcare and education, and in the treatment of elderly people. In both domains, moral

paralysis can lead to passivity and unhealthy, professionally imposed restrictions on the scope of action for young and old people. Moral paralysis can occur in a range of other work settings, when employees choose passivity because they are afraid of making an active mistake, and thus end up making a passive mistake instead. One key contribution of this book—both in theoretical and practical terms—is to draw attention to the often unacknowledged and problematic tolerance for passive mistakes.

Other sources of passivity are the systems of holding back that make people into spectators in situations where they could have made a positive difference even by making a microscopic effort. In organizations, it makes sense to challenge systems of holding back, and be aware that they are tenacious. One colleague may assume about another that he or she would never be supportive in a critical situation, and the other may assume the same in return. The result is that none of them steps forward to help the other and both lose. It is possible to reveal those assumptions to be false, and move beyond them, but the systems of holding back are never overcome once and for all, but tend to reappear in new guises. This means that employees and leaders need to be alert to them, and take active steps to challenge the passivity they bring. In order to foster active engagement, we can appreciate, reward, and celebrate personal initiatives in critical quality moments.

## Psychological Safety

The two doctors interviewed in chapter five both exemplify how openness about previous failures and mistakes can be a source of significant professional learning. When colleagues sit down together to analyze events that have not gone according to plan, with negative consequences, they build up a richer repertoire of possible responses to future events of the same kind. A precondition for honest conversations about one's own mistakes is psychological safety. The participants need to sense that what they have to say will not be used against them. There is a shared assumption that it is safe to be open about one's own experiences in not getting things right. The threefold definition of trust is also relevant as a component in this kind of safety. The person who shares the details of the mistake must

believe that the recipients have the ability, benevolence, and integrity to use the information constructively. Narratives about mistakes make the narrator vulnerable, since it is likely that the information they contain can be used against him or her. Leaders have a particular responsibility for creating the psychological safety that makes the sharing of mistakes possible, by offering protection against repercussions. When done constructively, the emphasis is on the causes of why things went wrong and what can be done better next time, and not on attributions of blame.

## Ethical Understanding

The narratives about fallibility at work also provide a source for ethical understanding. Events at Søbakken nursing home serve as an illustration of the extent to which the ethical emphasis in an organization should be on avoiding harm or on doing good. The leaders Borvik and Norlin shifted the attention from the former to the latter, thus prioritizing the residents' wishes for more activity and coming closer to life over protective measures. Creating awareness about the distinction between prescriptive and proscriptive ethics is in itself valuable, since it can generate rich discussions about priorities in the workplace.

One outtake from what doctor Westad told me is that it can make sense to immediately acknowledge a mistake, in order to stop victims from wrongfully blaming themselves for a terrible outcome. Both doctors who contributed to the discussion of learning from failure in healthcare see open talk about past mistakes as a genuinely future-oriented initiative, when it is motivated by a wish to learn and do better next time.

An ethics of fallibility can have a normative component, addressing how one should respond to mistakes at work, and a descriptive component, focusing on explanations of moral misconduct. Normative input can come from duty ethics and consequentialism, traditions that differ in their emphasis on whether moral qualities like respect, honesty, and fairness are more important than maximizing good outcomes. Descriptive input can

come from studies in moral psychology that aims to explain why people engage in moral misbehavior. The two components can come together in a stance on forgiveness, or on the extent to which people who have morally misbehaved deserve to get a new chance. We have seen that this can be an ongoing and concrete issue, as in the turnaround at Norsk Gjenvinning and in the aftermath of the Icelandic financial crisis. One of the main findings in studies in moral psychology is that situational aspects have more predictive power than personal aspects, or that circumstances tend to influence behavior more than character. This tendency provides us with a general reason to forgive people for their misdeeds, since it raises doubt about the sharp distinction between good and bad people. It may be reasonable to expect some sort of confession or admitting to a moral mistake for forgiveness to take place. The parting idea in the final chapter of the book is that the process of forgiving (a normative endeavor) can be informed by insights from research in moral psychology (a descriptive endeavor).

Fallibility is a feature of human endeavors that we must learn to cope with, and the discussions in this book indicate that we can generate excellent outcomes together by realizing that we are relational, interdependent beings. Each individual depends upon others for support, encouragement, and help, but also for the constructive opposition in critical quality moments. When we overcome the systems of holding back, we are capable of producing what Esa Saarinen has called miracles of collaboration. Then we can shine and glow through the marvelous things we manage to do together, rather than one by one, as separate entities.

Future studies and reflections on fallibility at work will take place to the backdrop of automation, where more and more tasks are performed by intelligent robots that are capable of processing far more information than any human being, at a dramatically higher speed. These robots may not be infallible, but in many contexts, they are likely to perform far better than humans, since they do not get tired, exhausted, distracted, sleepy, angry, or exhilarated, states that can negatively affect the quality of our decision-making and behavior in critical situations. Automation opens up for safer traffic, more reliable medical diagnoses, higher precision in financial analyses. quicker proofreading, and so on. Robots are likely to outperform human beings in a range of contexts, thus making many of us superfluous in work settings. Our fallibility is

part of the problem, but may also be a key to the solution, as we leave the activities that call for high precision and speed to the mechanical minds, and instead expand our scope of action in directions where trial and error are part of the thrill.

## Reference

Kaaby, M. (2016, 20th May). *Fallibility in choir settings*. Interviewer: Ø. Kvalnes.

# Index

## A

Active mistake 42, 43, 51, 55, 64, 67, 116, 124, 151, 152  
Agent–pawn 3, 10, 14–17, 135, 149  
Akerselva 101  
Anti-phobic effects 2, 7, 8, 16  
Anxiety 6–8  
Ariely, Dan 133, 137  
Attribution theory 15, 94, 95  
Autonomy 5, 16, 41, 107, 127  
Autopsy without blame 28, 108  
Aviation 3, 23, 28, 60–63, 69, 72, 73, 75, 76, 86, 116, 149

## B

Barrier model 60, 63, 68, 71, 150  
Bentham, Jeremy 125  
Bjørnbeth, Bjørn Atle 87, 91  
Blame 16, 23, 26–28, 34, 42, 51, 64, 81, 82, 94, 108, 139, 153

Bolstad, Inga 21  
Borvik, Kristine 39  
Bottura, Massimo 26  
bSafe 7, 8  
Bystander effect 23, 29–34, 68, 89, 102–104, 112, 141, 151

## C

Carlsen, Arne 40, 41  
Carragher, Jamie 12  
Childhood 1–4, 6–8, 11, 12, 14, 16, 17, 44, 51, 149  
Cognitive dissonance 29, 30, 89, 134  
Concorde fallacy 29  
Confirmation fallacy 23, 29, 33, 34, 89, 91, 102, 105, 112, 141, 151  
Consequentialism 122, 124, 125, 127, 141, 153  
Courage 68, 76

Crew Resource Management 72  
 Critical quality moment 17, 73, 108

## D

Danger 3–6, 9, 74  
 Denial of injury 135  
 Denial of responsibility 135, 137  
 Denial of victim 135  
 Descriptive ethics 123, 142  
 Design thinking 24  
 Diffusion of responsibility 31, 32, 68,  
 89, 103, 104  
 Dutton, Jane 81, 82, 84, 96, 113  
 Duty ethics 122, 124–127, 141, 153  
 Dweck, Carol 3, 10, 12, 13, 81, 93

## E

Edmondson, Amy 22, 26, 28, 81, 95  
 Error 63–65, 68, 69, 71, 76, 86, 94,  
 129, 148, 155  
 Evolution 2, 4, 7  
 Excellence 148  
 Execution error 63, 64  
 External attribution 94

## F

Feedback 14, 32, 33, 60, 61, 72, 75,  
 88, 107, 110  
 Fixed mindset 3, 12–14, 93  
 Forgiveness 123, 138, 139, 142, 154  
 Free-range kids 17

## G

Gender 110  
 Gimmestad, Jarle 46, 60, 61, 91

Givers and takers 104  
 Gorilla experiment 35, 64, 131  
 Grant, Adam 102  
 Growth mindset 3, 10, 12–14, 17,  
 81, 93, 150

## H

Halvorsen, Kristin 53  
 Harm 4, 6, 7, 9, 23, 40, 42–45, 47,  
 49, 51, 52, 55, 56, 64, 83, 86,  
 107, 111, 122, 124, 149, 153  
 Hazardous waste 129–133, 138, 140  
 Helping 54, 102–104, 114, 116  
 High-quality connections 81, 97  
 Hillsborough disaster 81  
 Hint and hope 69–72, 76, 89  
 Honesty 84, 85, 125–127, 129, 135,  
 137, 153  
 Hudson River landing 75  
 Hume, David 114

## I

Iceland 11, 135, 138  
 Immediate acknowledgement 81,  
 83–85, 91, 92, 94, 96, 122  
 Inattention blindness 33, 61, 62,  
 131  
 Innovation 22, 23, 25–27, 103  
 Integrity 55, 80, 83–86, 93, 153  
 Internal attribution 94

## K

Kaaby, Mette 148  
 Kahneman, Daniel 29, 30, 33  
 Kant, Immanuel 125  
 Kohlberg, Lawrence 45, 46

## L

Loss aversion 30

## M

Mill, John Stuart 125

Moral development 45, 46

Moral dissonance 134, 136, 138,  
141, 142

Moral hazard 40, 41, 49–52, 56, 151

Moral luck 40, 44, 47, 49–53, 55,  
93, 126

Moral neutralization 133–138, 141,  
142

Moral paralysis 40, 41, 49–52, 56,  
151, 152

## N

Norlin, Helén 41, 48

Normalization of questionable behavior 138

Normative ethics 122, 124, 127, 141

Norsk Gjenvinning 123, 129, 154

Nursing home 39–46, 52, 55, 56

## O

Omission bias 43, 44, 55, 151

Organizational culture 69, 76

Osmundsen, Erik 123, 129

## P

Parenting 5, 15, 16

Partnair accident 65

Passive mistake 42, 43, 51, 54, 55,  
64, 67, 116, 124, 151, 152

Perception 33, 49, 61, 62, 93, 102,  
112, 117

Pilot 16, 22, 46, 59–62, 65, 70–76,  
88, 91, 111

Planning error 64

Pluralistic ignorance 31, 32, 89

Post-it 25, 34

Prescriptive ethics 44, 56

Proscriptive ethics 44, 56, 153

Protection 4, 5, 8, 12, 40, 50, 56,  
135, 153

Pygmalion effect 125–127

## R

Randjelovic, Mina 88

Reason, James 60, 63, 65

Reflective equilibrium 131, 132, 134

Rekdal, Kjetil 16

Relational attribution 94, 97

Resilience 2, 10–12, 17

Responsibility 12, 14–16, 21, 31, 32,  
40, 51, 60, 67, 77, 82, 83, 85,  
89, 92, 94, 95, 97, 103, 121,  
122, 127, 135, 137, 139, 141,  
149, 151, 153

Risk 2–4, 6–9, 11, 22, 40, 42, 44,  
47, 49–52, 55, 56, 59, 68, 80,  
86, 92, 96, 106, 109, 111, 122,  
124, 149, 151

Rough-and-tumble 6

## S

Safety 4, 5, 14, 17, 28, 44, 45, 47,  
49, 60–63, 67, 69, 73, 74, 76,  
81, 86, 95, 103, 109, 149, 152,  
153

Salma 25

Sandseter, Ellen Beate 2–4, 6, 7

Saarinen, Esa 154

- Scrapegoat 64  
 Senior-junior 88  
 Simons, Daniel 33, 62, 131  
 Skenazy, Lenore 5  
 Slips and lapses 63, 64  
 Social cost 86, 87, 102, 105, 109–112, 117, 150  
 Socrates 61  
 stoicism 10, 11  
 Sullenberger, Chesley B. 75  
 Sunk-cost fallacy 29, 30, 34, 89, 151  
 Surgeon 22, 73–75, 82, 87  
 Sustainability 131  
 Systems of holding back 102, 112–117, 152, 154  
 Søbakken nursing home 111, 122, 151, 153
- T
- Tenerife disaster 70, 72
- Theiste, Morten 72  
 Trust 9, 46, 68, 80–85, 93, 96, 97, 115, 124, 139, 152
- U
- Upbringing 2, 9, 12, 14, 16, 17
- V
- Viagra 25, 34  
 Vulnerability 75, 91
- W
- Waste management 123, 129–132, 142  
 Westad, Stian 79

**Open Access** This book is licensed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this book are included in the book's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the book's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

