

# **MORAL RESPONSIBILITY**

# **MORAL RESPONSIBILITY VS**

1. Role responsibility
2. Professional responsibility

# FEYNMAN ON NASA

*“When NASA was trying to go to the moon, there was a great deal of enthusiasm: it was a goal everyone was anxious to achieve. They didn’t know if they could do it, but they were all working together.”*



*“But then, when the moon project was over, NASA had all these people together: there’s a big organization in Houston and a big organization in Huntsville, not to mention at Kennedy, in Florida. You don’t want to fire people and send them out in the street when you’re done with a big project, so the problem is, what to do?”*



*'You have to convince Congress that there exists a project that only NASA can do. In order to do so, it is necessary—at least it was apparently necessary in this case—to exaggerate: to exaggerate how economical the shuttle would be, to exaggerate how often it could fly, to exaggerate how safe it would be, to exaggerate the big scientific facts that would be discovered. "The shuttle can make so and-so many flights and it'll cost such-and-such; we went to the moon, so we can do it!"'*



*'Meanwhile, I would guess, the engineers at the bottom are saying, "No, no! We can't make that many flights. If we had to make that many flights, it would mean such-and-such!" And, "No, we can't do it for that amount of money, because that would mean we'd have to do thus-and-so!"'*



'Well, the guys who are trying to get Congress to okay their projects don't want to hear such talk. It's better if they don't hear, so they can be more "honest"—they don't want to be in the position of lying to Congress! So pretty soon the attitudes begin to change: information from the bottom which is disagreeable—"We're having a problem with the seals; we should fix it before we fly again"—is suppressed by big cheeses and middle managers who say, "If you tell me about the seals problems, we'll have to ground the shuttle and fix it." Or, "No, no, keep on flying, because otherwise, it'll look bad," or "Don't tell me; I don't want to hear about it."



'Maybe they don't say explicitly "Don't tell me," but they discourage communication, which amounts to the same thing. It's not a question of what has been written down, or who should tell what to whom; it's a question of whether, when you do tell somebody about some problem, they're delighted to hear about it and they say "Tell me more" and "Have you tried such-and-such?" or they say "Well, see what you can do about it"—which is a completely different atmosphere. If you try once or twice to communicate and get pushed back, pretty soon you decide, "To hell with it." So that's my theory: because of the exaggeration at the top being inconsistent with the reality at the bottom, communication got slowed up and ultimately jammed. That's how it's possible that the higher-ups didn't know.'



# WERNHER VON BRAUN





*"My refusal to join the party would have meant that I would have had to abandon the work of my life. Therefore, I decided to join."*

Wernher von Braun