

ECSTATIC ECONOMICS · THE LUMINOUS BUSINESS METHODOLOGY

Where the Flow Stops

Finding the Gain an Organisation Already Holds

Ammanuel Santa Anna

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A NOTE BEFORE YOU READ

This work is offered for education and leadership development. It is not legal, financial, accounting, investment, medical or psychological advice; take the advice of a qualified professional who knows your circumstances. Companies and events are described from the public record as the author understands it; characterisations are the author's analysis. Examples are illustrative, and no particular outcome is promised to any reader.

ABSTRACT

Finding the gain an organisation already holds: the meeting, the handoff, the unasked question, the front line and the measure. Finding the gain an organisation already holds: the meeting, the handoff, the unasked question, the front line and the measure; seven chapters with a field manual.

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CHAPTER ONE

The Meeting After the Meeting

A decision is made twice, once at the table and once in the lift, and the second is usually the true one.



The Meeting After the Meeting

HAUTE LUMIÈRE · WHERE THE FLOW STOPS · CHAPTER ONE

Twenty past eleven, the lift

It is twenty past eleven on a Thursday, and the quarterly review on the fourth floor has just ended. Nine people approved the date. The new warehouse system goes live on the first of March, and there were nods all the way round the table, and the chief executive thanked everyone for the candour of the discussion. The operations director is standing at the lift with a paper cup of coffee that went cold during the second agenda item. The window at the end of the lobby has the flat grey light of a February morning. The doors open, and the head of logistics steps in beside her, and as soon as the doors close he says, without looking at her, *It won't be March.*

She says, *I know.*

That is the whole conversation. It lasts the four floors down. Her stomach has known since the first slide, the one with the green milestones, and it knows now that in six weeks she will be the person explaining why the date slipped, to the same nine people who nodded. She is a composite, drawn from the way these mornings are described in the research below and in the house's own practice, and no firm is meant. Most people who have worked inside an organisation of any size have stood in that lift.

Ammanuel Santa Anna's canon describes the same moment from a governance table, and it is unusually exact about where the second conversation happens.[1] A proposal passes; a body in the room registered something the mind overrode; and the doubt comes out later, in another place:

> *The vote proceeds. The proposal passes. And six months later, when the initiative has collapsed under the weight of consequences that were, in retrospect, entirely foreseeable, someone will say: "I had a feeling about that from the beginning." They will say it privately, of course — in the hallway, over coffee, to a trusted colleague. Not in the boardroom. Never in the boardroom.*

This chapter makes one claim. An organisation that holds its truest information in the corridor is not short of that information; it has simply arranged not to collect it. The meeting after the meeting is the first place the flow of knowledge stops inside a firm, and because it stops in a place everyone can see, it is also the cheapest place to begin.

A memo with its edges rounded

The organisational psychologist Chris Argyris spent time inside the United States State Department, and in a short essay published in 1980 he described what he had seen there.[2] He watched memoranda written by young foreign service officers "get edges rounded off" on their way up, each superior softening the text before passing it to the next. He quoted a senior official asking, in frustration, whether he could get a memo on China that he could not read in *Time* magazine. And then he made the observation that the rest

of his career would elaborate. In most cases, he wrote, "the information required to discuss the issues intelligently is available (albeit scattered) in the organization." The problem was not ignorance. It was that discussing risky issues was unacceptable, and that the unacceptability was itself never discussed.

Argyris called those issues undiscussable, and the title of the essay is the whole idea in one line: *Making the Undiscussable and Its Undiscussability Discussable.* Santa Anna's canon, writing about organisational silence, calls the result a double seal: you cannot talk about the thing, and you cannot talk about the fact that you cannot. He gives the plainer cost a sentence of its own. Shadow culture, as the canon names the corridor, is "the inevitable consequence of organizational silence — a parallel communication system in which truth circulates outside official channels, ungoverned and unaccountable."

The scholarly frame behind the essay had been set out six years earlier. In *Theory in Practice* (1974), Argyris and the philosopher Donald Schön drew a distinction that has since become ordinary vocabulary in organisational development.[3] Every professional, they argued, carries two theories of action. The espoused theory is the one a person will describe if asked: I value candour, I welcome challenge, decisions here are made on the evidence. The theory-in-use is the one that can be inferred from what the person actually does, and it is often quite different. The two are not lies. Most people sincerely believe their espoused theory and are unaware of the gap, which is why it persists. In *Organizational Learning* (1978) the two authors carried the distinction from the person to the firm.[4]

The method Argyris used to show the gap is worth describing, because it is the closest thing in the literature to a photograph of the lift. He asked managers to recall a difficult conversation and write it on a page in two columns: on the right, what was actually said; on the left, what they were thinking and did not say. Across his books, the left-hand column is where the organisation's real assessment of the situation tends to live, and the right-hand column is where its meetings take place. Peter Senge's *The Fifth Discipline* (1990) carried the exercise into many management courses, and it is still taught in that form.

A word on the strength of this evidence. Argyris worked mostly by intervention and case, with transcripts, recorded meetings and his own participation, and much of his later writing is argument from those cases rather than measurement across many firms. The two-column method is a teaching instrument, not a study design. What the work shows with confidence is the pattern and its mechanism; what it cannot show is how common the pattern is, or what it costs. Those questions were taken up later, by other people, with other tools.

Argyris added one more distinction that matters for anyone who runs a meeting. In a 1976 paper on research into decision making he separated two ways an organisation can learn from an error.[5] In single-loop learning it corrects the action and keeps the assumptions: the date slipped, so the next plan gets a contingency week. In double-loop learning it questions the assumptions that produced the action: the date slipped because the people who knew it would slip were not able to say so, and the next plan changes how dates are agreed. The first kind of learning is common and useful. The second is rare, and the meeting after

the meeting is one of the reasons. An organisation cannot question an assumption whose evidence it has arranged to hear only in the lift.

Santa Anna's canon puts the distinction in its own terms, and in the place where it does the most damage. Writing of the room every organisation keeps without a door, it lists what lives there, and one of its exhibits is simply the gap Argyris named: "It determines what gets said in meetings and what gets saved for the parking lot." That is the espoused theory and the theory-in-use, located in a building.



A drive to Abilene

HAUTE LUMIÈRE · WHERE THE FLOW STOPS · CHAPTER ONE

A drive to Abilene

In 1974 the management scholar Jerry Harvey published an essay that opens on a family afternoon in Coleman, Texas.[6] It is hot. Someone suggests driving to Abilene, about fifty miles away, for dinner. Each member of the family agrees, and they go, and the trip is long and the dinner is poor, and on the drive home it emerges that nobody had wanted to go. Each had agreed because each believed the others wanted it. Har-

vey called this the Abilene paradox, and he gave it a subtitle that is more precise than the paradox: *the management of agreement*. His point was that organisations are often less troubled by conflict than they believe, and more troubled by their inability to manage agreement, the private agreement that the plan is wrong, which nobody voices.

Harvey's essay is an anecdote and an argument, not a study, and it should be read as one. It has lasted because it describes a mechanism that later research could test. Social psychologists call it pluralistic ignorance: each person privately disagrees with what they take to be the group's view, and conforms because they believe the others hold it.

In 2005 James Westphal and Michael Bednar tested that mechanism in a setting where the stakes are recorded in public filings: the boardroom.[7] Surveying a large sample of outside directors at medium-sized American companies, they found evidence that when a firm performed relatively poorly, directors tended to underestimate how far their fellow directors shared their own concerns about the firm's strategy. Believing themselves alone, they were less likely to raise those concerns in board meetings, and boards were less likely to change course. How strongly it held, the study found, depended on how alike the outside directors were and how closely they were tied by friendship. It is survey evidence, with the limits of self-report, and it measures belief and behaviour in one kind of room. But it is a careful test of exactly the mechanism Harvey described, among people paid to speak.

Read the lift again with that study in mind. Until the doors closed, the operations director did not know that the head of logistics shared her doubt, and he did not know that she shared his. Each had sat through the meeting believing the other was, if not confident, at least content. Each had therefore judged that saying *it won't be March* would be to stand alone against a room that had already agreed. The four floors were not the first time either of them doubted the date. They were the first time either of them learned that the doubt was shared, which is the one piece of information that would have changed what they said upstairs. Pluralistic ignorance is usually described as a failure of courage. In the lift it looks more like a failure of information: two people holding the same assessment in the same room, neither able to see the other's.

That reframing matters for what a leader does next. A failure of courage is answered with exhortation, and exhortation rarely works. A failure of information is answered with structure: a way for the room to see, before the vote, how many of its members hold the doubt.

Santa Anna's canon describes the same arithmetic of silence, in a sentence that reads as if written for Westphal's directors. The organisational bystander effect, it says, produces a paradox: "the more widely known an unnamed truth becomes, the less likely it is to be spoken." The canon's explanation is that responsibility diffuses as knowledge spreads. Everyone knows; everyone assumes someone better placed will say it; everyone waits.

The Margin, another of the house's books, writes about the people who walk past help they need, and about why [the ones who most need a door are rarely the first to knock](https://hautelumiere.life/editions/rsd-

master-rsd-in-acedemia-final-manuscriptt/page/). The board study suggests the same holds for doors in the other direction. The people best placed to say *it won't be March* are often the ones most sure that someone else will.

What the lift costs

If the meeting after the meeting were merely awkward, it would not deserve a chapter. It deserves one because it is expensive, and because the expense is of a kind that most organisations cannot see on any report they produce.

In 2003 Frances Milliken, Elizabeth Morrison and Patricia Hewlin interviewed forty employees about the issues they had not raised with their bosses.[8] Most of them had been in such a situation. The issues ranged from colleagues' performance to concerns about the organisation's direction, and several respondents said they did not feel comfortable raising any concern at all with those above them. The reason given most often was not fear of being fired. It was fear of being seen, or labelled, negatively, and so damaging relationships they valued. Forty interviews is a small exploratory study, and its authors present it that way. Its finding has held up in larger work. Three years earlier, Morrison and Milliken had proposed that silence can become a property of an organisation, not only of its individuals, sustained by shared beliefs about what speaking up is worth.[9] In 2011 James Detert and Amy Edmondson, across four studies including interviews in a large corporation and several surveys, identified what they called implicit voice theories: taken-for-granted rules about when speaking up is risky, held even by people with ideas that would help the organisation, and predictive of silence beyond what other measures explained.[10]

None of this research prices the silence, and it would be dishonest to put a figure on it here. What the research does show is where the cost lands. It lands as decisions made on incomplete information, as plans that slip in ways the planners privately expected, and as rework done by the same people who foresaw it. Santa Anna gives the mechanism its most practical form, in a passage on what an organisation's silence does to its decisions: "Leaders make choices based on the official reality rather than the actual reality — like navigating with a map that omits certain mountains and rivers."

Consider what the operations director in the lift actually holds. She has a specific forecast, that the date will not hold, and probably a specific reason: the data migration has not been tested on the full catalogue, or the two sites are on different label printers, or the supplier's integration team has changed. The head of logistics holds another. Between them, in four floors, they have the most accurate project review of the morning. The firm has paid for that knowledge: in their salaries, in their years, in the incidents that taught it to them. It is not collected, because the place where it was spoken is not a place the firm reads.

This is the sense in which the corridor holds a gain. When the date slips, someone will spend money recovering it. Contractors are extended, the old system is kept running in parallel for another quarter, customers are told, a team works weekends. Every one of those costs was foreseeable at twenty past eleven, by two

people, at a time when it was cheap to act. The difference between what the plan costs when the corridor's knowledge reaches the table and what it costs when it arrives six weeks late is real money, and it belongs to nobody, because nobody measured it. Chapter 5, on how a gain is baselined and attributed honestly, takes up what it would mean to measure it.

The canon adds one more cost, and it is the one leaders tend to feel first without naming. Organisations that live with a busy corridor, it says, develop a peculiar warmth: "warmth without depth, friendliness without intimacy, collegiality without the kind of raw trust that allows people to take real risks together." People like each other. They do not tell each other the date is wrong.

Euphemism, and the rounded edge

There is a reason the two meetings sound so different, and it is not that the people in the room are dishonest. Argyris's own explanation was that most of us are taught, early and thoroughly, a set of rules for difficult conversations: stay in control, save face, avoid upsetting people, keep negative feelings to ourselves. The rules are learned as courtesy and practised as skill. In a meeting they produce what he later called skilled incompetence: people who are very good at avoiding the conversation the organisation most needs.[2]

Santa Anna's canon gives the product of that skill a name. Writing of the language organisations use to discuss what they will not discuss, it says: "Euphemisms are not lies. They are something more insidious: they are truths with the nerve endings removed."

It is worth reading the fourth-floor meeting through that sentence. Nobody said the date was safe. The project lead said there were *some dependencies to manage*. The finance director said the plan was *ambitious but achievable*. The head of logistics, asked directly, said the team would *do everything it could*. Each of those phrases is true. Each of them is the operations director's forecast with the nerve endings removed, and the room approved the date on the strength of nine sentences, all of which knew better.

It is worth staying a moment with the operations director's body, because it is doing something useful. The tightening she felt at the first slide was not anxiety in the clinical sense. It was a forecast, arriving before she had words for it, built from years of watching migrations run late. The rules of the meeting asked her to treat it as a private feeling and to say something constructive instead. She did. The cost of that small act of courtesy was that the most accurate instrument in the room, which was her own experience, was switched off at the moment it was needed, and switched on again in the lift, where nobody could use it.

That is also why the corridor is tiring in a way the meeting is not. Holding two assessments of the same project, one for the room and one for the lift, is work, and it is done every week by the people an organisation most relies on. The canon describes the result as a fatigue that has nothing to do with workload. Most leaders recognise it in their best people before they recognise its cause.

The canon's sharpest line on the subject explains why the habit survives a leader's best intentions: "You cannot question an avoidance you don't know you're practicing." The chief executive thanked the room for its candour. She meant it. Her espoused theory is that her meetings are candid, and the theory-in-use, visible only from the lift, is that they are not. She will not learn the difference from the meeting itself, because the meeting is the one place the difference does not appear.

The house's Luminous 100, its reading of the frameworks every consultancy sells, describes the cognitive half of the same mechanism under Argyris's other famous instrument, the ladder of inference: people climb from data to conclusions "in milliseconds, unconsciously, and then treat our conclusions as facts." A room of nine climbs that ladder together, and arrives at the first of March.



The question moved into the room

HAUTE LUMIÈRE · WHERE THE FLOW STOPS · CHAPTER ONE

The question moved into the room

What changes this is less dramatic than most leaders expect. It does not require a culture programme, a survey or an offsite. It requires that the second meeting be held inside the first, and that the person with the most power be the one who makes that possible.

Picture the next quarterly review, and the operations director, who has decided to do one thing differently. She has read Argyris, or something like him, and she has noticed that the corridor conversation is always about the same three things: the date, the dependency nobody owns, and the person who will be blamed. So before the vote on her own project, she asks the table a question she has borrowed from the canon's chapter on governance, word for word: "What are we saying in the hallway that we're not saying at the table?"

The silence that follows is long enough to be uncomfortable. She does not fill it. Then the head of logistics, who has been here before, says the migration has not been run against the full catalogue, and nobody knows how long it takes. The finance director says she assumed the parallel running was budgeted, and asks whether it is. The project lead says, carefully, that the supplier's team changed in January. None of this is new information. All of it was in the building on Thursday.

The order of what she did matters more than the question. She spoke first about her own project, so the question cost nobody else anything. She asked it before the vote, not after, so the answer could change the decision. She waited. And when the first answer came, she thanked the person and asked the next question about the substance, not about why it had not been said before, because the second question turns a disclosure into a confession. The canon's practice notes describe the same discipline in a different setting, and the point is identical: the person with positional power goes first, names something specific, keeps it about the pattern rather than a person, and then watches what happens in the room.

Two further habits make the question stick. The most senior person speaks last on any decision, because the canon's mapping guidance is right that structure, not courage, "prevents the premature convergence that occurs when the highest-status voice speaks first and everyone else aligns (consciously or unconsciously) with that perspective." And the meeting keeps a few minutes, every time, for what the canon calls the parking-lot audit, so that asking is ordinary rather than brave. *The Cairn*, another of the house's books, reads [the sentences that are hardest to hedge when you have to say them out loud](https://hautelumiere.life/editions/rsd-rsd-and-self-confidence/page/), and the same principle holds: a sentence that has been said once, in the right room, is easier to say the second time.

There are failure modes, and they are predictable. A leader who asks the question and then argues with the first answer has taught the room the answer to the question. A leader who asks it only when things are going badly has made it a signal of trouble. And a leader who asks it in front of her own superior, about a project her superior sponsored, is asking her team to take a risk she has not taken. Chapter 7 carries the

run sheet for this practice, and Chapter 6 places it in the order of a first ninety days. What the article can say is that the first time is the hardest, and that most rooms answer by the third.

The practice also changes the chief executive's position, and this is the part leaders tend to underrate. Before, she had one source of information about her projects: the meeting, which told her what people thought she wanted to hear. After, she has two, and the second is better. She did not have to become a different leader to get it. She had to let a director borrow her authority for ninety seconds, and then not punish what the room said with it. Over a year, the difference between those two positions is the difference between a leader who learns about her slipped projects from her finance director and one who learns about them while they can still be moved. The first leader feels, often, that her organisation is slow and that people do not take ownership. The second has found that ownership was there all along, in the lift, waiting for a table to sit at.

None of this guarantees that the date holds. Sometimes the second meeting, held in the first, produces the same date with a plan attached. Sometimes it produces a different date. Either outcome is a decision made on the actual map. The gain is not that the project is faster. It is that the cost of being wrong is met at twenty past eleven, when it is a conversation, instead of six weeks later, when it is a recovery.

The next place the flow stops is less visible than a lift. It is the week a piece of work spends waiting between two teams, the subject of Chapter 2.

Beneath both lies a quieter question, why one person in the room does not ask what she wants to ask, which Chapter 3 takes up and which the research on psychological safety has been trying to answer since the 1990s.

Reading your own corridor

The article this chapter began as ended at the lift. The book can go further, into the finer points a leader meets when she tries this in her own building, and the first of them is knowing whether her corridor is busy at all.

There are signs, and none of them needs a survey. A decision approved in a meeting is reopened by email within the week. Important meetings have pre-meetings, held by the people who will speak, so that nothing is said in the room that has not been agreed outside it. The same three people talk in every review, and the others speak afterwards, in ones and twos. A project's owner learns that it is late from the finance director rather than from her own team. The minutes record agreement that nobody can later remember giving. Any one of these can happen in a healthy organisation. Three or four together are the espoused theory and the theory-in-use, visible from the outside.

The second finer point is that not everything said in the corridor is information. The lift carries three kinds of sentence, and they need different answers. Some are forecasts: *it won't be March*, *the migration hasn't been*

run on the full catalogue. These are the gain this chapter is about, and they should reach the table before the decision. Some are preferences: *I would have done it differently*. They are worth hearing, but they are not evidence, and treating them as evidence teaches the room that the loudest preference wins. And some are grievances: *this is going to land on us again*. A grievance is usually a forecast with a history attached, and the way to honour it is to separate the two, ask what the forecast is, and deal with the history somewhere else. A leader who answers all three kinds the same way, with gratitude and a note, will soon find her meetings full of preferences and her corridor still full of forecasts.

The third point is timing. The question moved into the room works only if it is asked before the decision, and with enough time left to act on the answer. Asked after the vote, it produces confessions; asked in the last five minutes, it produces silence, because everyone can see there is no time to reopen anything. The practical rule is that the hallway question is the first item under any decision, not the last, and that a decision is not taken in the same meeting in which a serious forecast against it was first heard, unless the forecast can be tested in the room.

The fourth is anonymity, which leaders reach for early and should hold loosely. The canon's governance chapter describes a practice in which each person writes one unsaid thing on a card, and the cards are read aloud without names, and it is useful for a room in which nobody yet believes speaking is safe. The canon is also clear, in its chapter on acknowledgment, that an anonymous process "is a bridge to deeper work, not a substitute for it." A team that can only tell the truth on unsigned cards has learned that the truth is dangerous, and the cards will not unteach it. Use them to open the door, and then stop.

The fifth is the leader's own corridor. Every leader has a lift of her own, the conversation she has with one trusted peer after her own superior's meetings. The fastest way to change a team's corridor is often to close one's own, by asking, upward, the question one wants the team to ask. A team watches what its leader does in the rooms above it far more closely than she imagines.

And the decision that most changes the result is the simplest. It is what happens to the first person who answers. If the head of logistics says the migration has not been tested, and the project lead's face hardens, and the chief executive asks why this was not raised earlier, the practice is over before it has begun, whatever is said afterwards. If the first answer is thanked in a sentence and then worked on, the second answer comes faster. Chapter 6 places this in the first weeks of a ninety-day plan, and Chapter 7 gives the hallway question, the three kinds of sentence and the signs of a busy corridor as a single page.

The lift, next quarter

The review ends at a quarter past eleven this time. The date has moved to the middle of April, and the migration test is in the plan with a name beside it, and the parallel running is budgeted, and the chief executive did not thank anyone for their candour, because she did not need to. The operations director walks to

the lift with the same paper cup. The window at the end of the lobby has a little more light in it than it had in February.

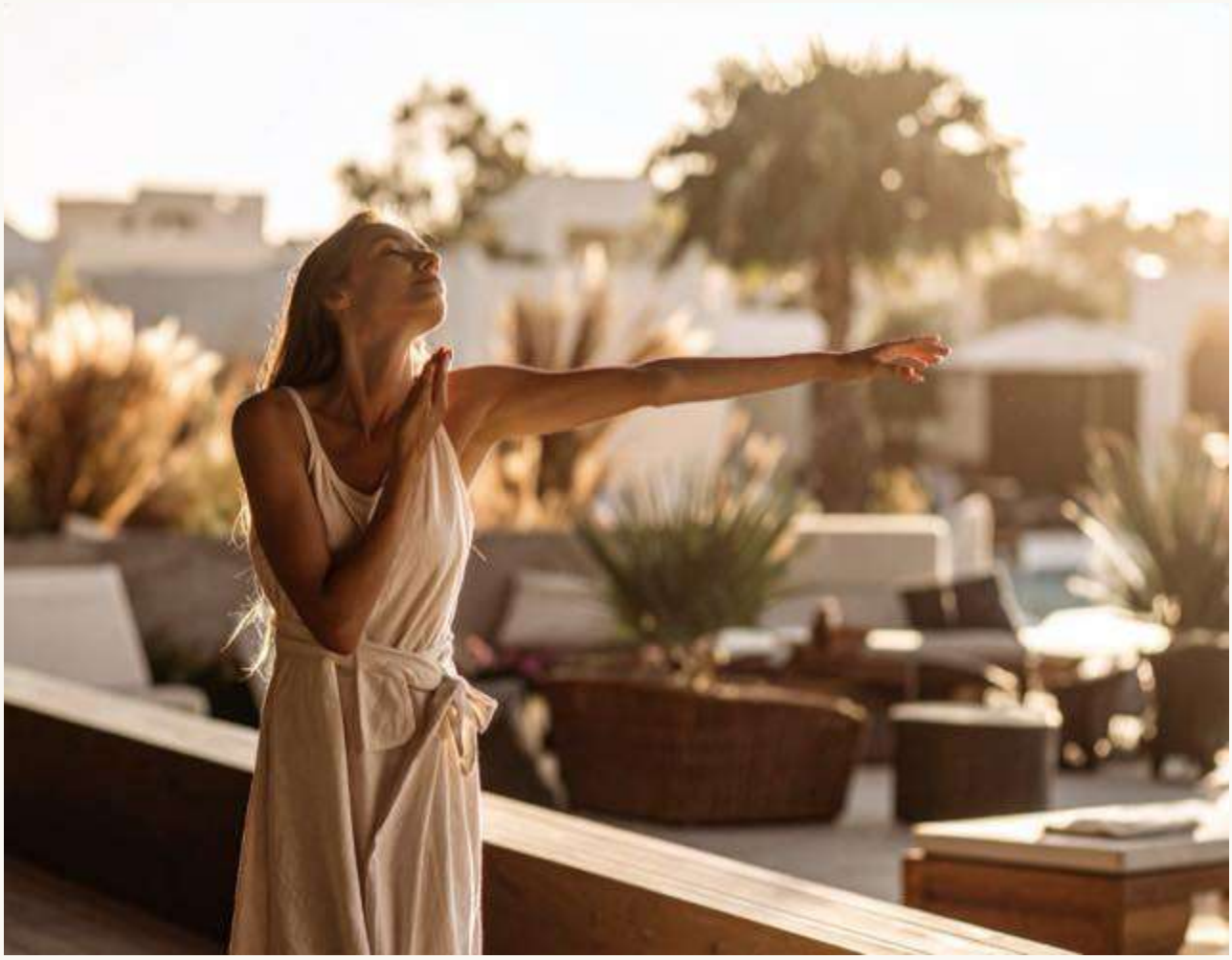
The head of logistics steps in beside her. The doors close. Neither of them says anything about the project, because there is nothing left to say about it that was not said upstairs. He asks about her weekend. She tells him.

It is four floors, and it is only a lift.

CHAPTER TWO

One Order, One Desk, One Week

An order that holds fifty minutes of work waits six days, and the waiting is where the cost lives.



One Order, One Desk, One Week

HAUTE LUMIÈRE · WHERE THE FLOW STOPS · CHAPTER TWO

Ten to nine, the order sheet

It is ten to nine on a Monday, and the order has been in the building for six days. The customer is a hospital, and the part is a motor assembly for the dishwasher in its main kitchen, which has been washing trays by hand since the previous Monday. At nine o'clock the hospital's facilities manager will ring, as she has rung every morning since Wednesday, and the order coordinator who takes the call has the order sheet on the desk in front of her under the strip light. It is a printed page with a column of initials and dates down the right-hand side, one for every desk the order has visited. There are seven sets of initials. Her shoulders have been up near her ears since Friday afternoon.

She is a composite, drawn from the way an order is described when operations researchers follow one through a firm, and no firm is meant. What she is about to discover is not.

Before the phone rings she does something she has not done before. She adds up the time anybody actually spent on the order. Twelve minutes to enter it. Six to run the customer's credit. Fifteen for an engineer to confirm that the assembly fits that model of machine. Eight for stores to find it. Ten to pack it and book the courier. The total is a little under an hour, and the order has been in the building for six days. Almost everything that has happened to it since Tuesday afternoon is waiting.

Ammanuel Santa Anna's canon on mapping the flow of value through an organisation has a sentence for the column of initials on her sheet.[11] "Every handoff between departments is simultaneously a material exchange and a relational event." The order moved seven times. Each move was a piece of paper, and each was also a small negotiation between two desks about whose problem it now was.

This chapter makes one claim. In most organisations the largest share of the time between a request and its delivery is spent in queues between people, not in the work itself; the queues are invisible because every desk they sit beside is busy; and the time lost there is a gain the firm already holds, in its lead time, its working capital and its customers' patience, waiting to be collected.

Fifty minutes in six days

The ratio the coordinator has just calculated has a name in the operations literature. Flow efficiency is the share of an item's total time in a system during which somebody is actually working on it. Her order's flow efficiency is well under one per cent. That is not unusual for an order that crosses several departments, and it is not a sign that anybody is idle. Every person who touched the order was busy all week. The order was simply never at the front of anybody's pile.

Practitioners in lean operations and in software often quote typical flow-efficiency figures for whole industries, and they are usually low. This chapter does not repeat any of them, because the ones in circulation are rarely traced to a study that measured them. What can be said with confidence is the method: follow one

item, record when work starts and stops, divide. Anyone can do it with a printed sheet and a clock, and the figure it produces is the organisation's own, which is the only one that matters to it.

The idea that waiting is the largest waste in a working system is older than the term. Santa Anna's canon opens its account of value-stream mapping with the engineer who made it central, Taiichi Ohno at Toyota, and describes what Ohno saw on the floor in Nagoya: the waiting, the overproduction, the unnecessary movement, and "the inventory piling up between processes like sediment in a slow river." Elsewhere the canon puts the symptom more bluntly. When value stops flowing, "inventory piles up between process steps like plaque in arteries."

The house's Luminous 100, its reading of the frameworks every consultancy sells, adds a sentence to the textbook list of lean's seven wastes that changes how the list is read. In its account of lean thinking, waiting is not merely lost time: "waiting reveals a flow blockage where developmental energy is pooling." That is a more useful way to hold the coordinator's six days than as a failure of the people who held the order. It says the pile on each desk is information. It tells you where the organisation is constricted, the way a swelling tells a physician where to look.

The difficulty is that nobody can see the pile as a pile. The engineer who confirmed the fit on Thursday did not experience the order as having waited two days for him. He experienced a full inbox, which he worked through in order, competently. Every queue in a firm looks, from the desk beside it, like a reasonable amount of work.

The customer sees it differently, and the difference is the whole commercial point. The facilities manager at the hospital does not experience fifty minutes of work. She experiences six days of trays washed by hand, three porters moved from their own jobs to do it, and a daily phone call she would rather not make. What the firm sells her, in the end, is not the motor assembly, which a competitor could also supply. It is the elapsed time between her call and a working machine. That is the figure she will remember when the next order is placed, and it is the one figure in the transaction that the firm's own people, each working hard at a desk, are least able to see.

It is also, in a plain accounting sense, money. An order that sits inside a firm for six days is stock bought and not yet sold, a part reserved and not yet invoiced, a customer who has not yet been billed. Multiply one order by every order in the building and the waiting is a quantity of working capital that the firm has lent, interest free, to its own queues.



A proof in five pages

HAUTE LUMIÈRE · WHERE THE FLOW STOPS · CHAPTER TWO

A proof in five pages

In 1961 a young operations researcher named John Little published a five-page paper in the journal *Operations Research* with a modest title, *A Proof for the Queuing Formula: L = λW*.[12] The formula was already in use; what Little supplied was a proof that it held very generally. In any stable system, the average number of items inside it equals the average rate at which items arrive multiplied by the average time each item spends inside. The conditions in his abstract are technical, and they amount to this: over a long enough period, in a system that is neither filling up nor emptying out, the relationship always holds.

Fifty years later Little wrote a retrospective for the same journal, and his own description of the result is plainer than any of its later admirers': "Basically, it is a theorem in queuing theory."[13] It became famous, he noted, because of its practical importance. The reason is that it can be turned around. If you know how much work is sitting in a system and how fast the system finishes work, you know how long a new piece of work will take to get through, without timing a single item.

Apply it to the coordinator's building. Suppose the order desks between them hold about thirty open orders at any moment, and the firm ships about five a day. Little's Law says an order will spend, on average, about six days inside. Nobody has to be slow for this to be true. The six days are not caused by any person's effort; they are caused by the thirty. To halve the lead time, the firm does not need its people to work faster. It needs fewer orders sitting between them, at the same rate of finishing.

That turnaround is the law's practical gift, and it is also where its honest limits lie. It concerns long-run averages, not the next order. It says nothing about which order should go first, and a system that is growing or shrinking will break it for a while. It does not explain why the thirty orders are there. But within those limits it is not an estimate or a finding that a later study might overturn. It is arithmetic, and it is the most reliable sentence in operations management.

The arithmetic also explains a habit the coordinator's building has never questioned. The order desk enters new orders in a batch at four o'clock, because it is efficient to do them together, and engineering reviews its pile on Tuesday and Thursday mornings, for the same reason. Each batching rule is sensible at the desk that made it. Taken together they mean that an order arriving on Tuesday at two waits two hours to be entered and then, if it misses the Thursday review by a few minutes, five days to be confirmed. Reinertsen's book returns to this point repeatedly: large batches feel efficient to the people who process them and are expensive to the work that waits in them. Little's Law makes the cost visible. Every batch adds to the number of items sitting in the system, and so, at the same rate of finishing, to the time each one spends inside.

None of this is a reason to abolish batches, which often save real effort. It is a reason to know what each one costs in days, and to decide on purpose.

Why the busy desk is the slow desk

The question it leaves is why so much work sits in a firm at once. The answer most leaders reach for is that the people are too few, and sometimes they are. More often, the queues are produced by a habit that looks like good management: keeping everybody fully occupied.

In the same year as Little's proof, the British mathematician John Kingman published a short paper on a single-server queue in what he called heavy traffic, a system running close to its full capacity.[14] His result, now usually called Kingman's formula, is an approximation, and its message is one that most operations students learn with a small shock. As a server's utilisation rises towards one hundred per cent, the average waiting time does not rise gently. It rises steeply, and without limit, and it rises faster the more variable the arrivals and the work. A desk that is busy eighty per cent of the time is a desk with a queue. A desk that is busy ninety-five per cent of the time is a desk with a long one.

Donald Reinertsen, writing about product development in *The Principles of Product Development Flow* (2009), made this the centre of his argument.[15] In knowledge work, he observed, the queues are invisible because

the inventory is information: designs waiting for review, decisions waiting for a meeting, orders waiting for a question to be answered. Nobody walks past them on a factory floor. And because the conventional instinct is to load every person fully, organisations produce exactly the conditions under which, by Kingman's arithmetic, waiting explodes. Reinertsen's book is a practitioner's synthesis, built from queueing theory and his own consulting, not an empirical study, and it should be read that way. Its reasoning is sound where it rests on the mathematics.

There is empirical work on what full loading does to the people inside it. In 2009 Diwas KC and Christian Terwiesch analysed operational data from two very different hospital services, patient transport and cardiothoracic surgery.[16] As load rose, they found, workers sped up, and for a while that looked like a gain. Sustained over long periods, the extra load slowed the service down again, and in cardiac surgery it was associated with worse outcomes for patients. It is one study of two services in hospitals, and correlation in operational data is not proof of cause. But it fits the theory uncomfortably well: a system run at the edge of its capacity borrows speed from its people and repays it with interest.

The Luminous 100 describes the instrument that most simply answers this, the kanban board with its limit on work in progress, in a line any operations manager could pin above a desk: "The WIP limits are the magic — they prevent overload and make bottlenecks visible." Its living-systems reading goes further, and it is the reason the house cares about a technical-sounding limit. Every living organism, it says, "has a natural metabolic capacity, and exceeding it doesn't create more throughput but more toxicity". A team asked to hold forty things at once does not finish forty things sooner. It finishes each of them later, and more tired.

The leader's instinct runs the other way, and it is worth understanding why. An idle person is visible; a waiting order is not. A manager who walks past an engineer with nothing on her screen feels a cost, the salary being paid for nothing. The same manager walks past nineteen orders waiting in the same engineer's inbox and feels nothing, because a pile of work looks like diligence. So the organisation is tuned, desk by desk, to remove the visible cost of a person waiting for work, and in doing so it maximises the invisible cost of work waiting for a person. Kingman's arithmetic says which of the two is larger whenever a desk runs close to full. It is almost never the person.

The coordinator feels this in her own body before she can name it. When her desk is fullest she is busiest, and when she is busiest the phone rings most, because the orders she is holding are the ones customers are chasing. The chasing is itself work, and it joins the queue. A desk running near its limit spends a growing share of its day explaining why it is running near its limit. Anyone who has worked a week like that will recognise the feeling of running faster to stay in the same place. *The Margin*, another of the house's books, reads [the hours a team spends that nobody budgets](https://hautelumiere.life/editions/rsd-master-rsd-in-acedemia-final-manuscriptt/page/); a desk near its limit spends them on chasing.

The Margin, another of the house's books, reads [the list too long to finish, and what it does to the person holding it](https://hautelumiere.life/editions/rsd-master-rsd-in-acedemia-final-manuscriptt/page/). The

queue is that list at the scale of a firm, distributed across seven desks so that nobody holds all of it, and so nobody feels its weight.

A question that travelled by email

The coordinator's sheet has one entry that does not fit the pattern of honest queues, and it is the one that cost the most. The order reached engineering on Wednesday afternoon. The engineer's initials and the date beside them say Friday. Between the two is not a queue of other orders. It is a question.

The order said *motor assembly, model 4*. There are two model-4 machines, an older and a newer, with different motors, and the hospital had not said which. The engineer sent an email to the order desk on Wednesday at five. The order desk read it on Thursday morning and rang the hospital, which had to send someone down to the kitchen to read the plate on the machine. The answer came back at two. The engineer, by then, was on site at another customer's, and read it on Friday morning. Fifteen minutes of engineering work took two days, because it needed one fact that the first desk could have asked for on the first call, if the first desk had known it mattered.

This is the relational half of the handoff that the canon insists on, and it is not a soft addition to the queueing mathematics. It is where much of the waiting comes from. A handoff in which the receiving desk's needs are known to the sending desk is fast. A handoff between two desks that communicate by leaving things for each other is slow in a specific, avoidable way: every missing fact becomes a round trip, and every round trip joins a queue at each end. The canon, describing a value stream that functioned but fumbled the same exchange every time, puts it ruefully: "The system works. It even wins races, sometimes." The race was being won. It was being won with a dropped baton at the same point on every lap.

The Luminous 100's entry on Eliyahu Goldratt's theory of constraints gives the other reason leaders misjudge their queues. The theory, it says, is "Elegant, counter-intuitive, and almost always reveals that the real bottleneck isn't where you think it is." Asked where the order was delayed, most people in the coordinator's building would say engineering, because engineering is always busy. The sheet says the delay was in the space between the order desk and engineering, which belongs to neither of them, and which neither of them is measured on.

The canon's point about relational value is easy to hear as sentiment and is better heard as mechanics. When two desks trust each other, a missing fact is settled by a call across the room in two minutes. When they do not, it is settled in writing, carefully, with a copy to a manager, and each careful message waits its turn in someone's inbox. Mistrust between departments does not show on any cost report. It shows as round trips, and every round trip shows, in Little's arithmetic, as days. A firm that wants its orders to move faster could do worse than ask which of its handoffs are conducted by phone and which by memorandum, and why.

The knowledge that would have closed that gap was in the building all along. The order desk's longest-serving clerk has known for years that model 4 comes in two versions. She checks it on every call she takes. The newer clerks do not, because nobody told them, and it is written nowhere. The person who already knows is the subject of Chapter 4, and she is usually closer to the queue than anyone thinks.



Walking the order

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Walking the order

What the coordinator does next is the practice this chapter is about, and it is less a technique than a way of looking.

She asks the operations manager to walk the order with her, backwards, from the courier booking to the first phone call, with the sheet in her hand. At each desk they ask three things and write the answers on the sheet. When did the order arrive here? When did someone start on it? What did it need from the previ-

ous desk that it did not have? The walk takes forty minutes. It is the first time either of them has stood at the engineering desk and looked at the pile.

The walk is uncomfortable in a particular way, and the operations manager notices it first. At every desk the person holding the order has a reason it waited, and every reason is true. Engineering was covering for a colleague on leave. Stores had a delivery come in on Wednesday. The order desk had a system outage on Thursday morning. Nobody is defensive, exactly, but everybody is explaining, and the manager realises that this is the first conversation she has ever had with these people about time rather than about effort. They have been asked many times whether they were busy. They have never been asked how long something sat.

That shift in the question is most of the practice. Asking how busy a desk is invites a person to defend their effort. Asking how long an order sat invites them to look at the system with you. The second question is answered more honestly, because it accuses nobody. It is the discovery Chapter 1 describes, when a leader moves the conversation from the lift to the table: people tell the truth readily when the truth is about the system.

Then they count. Not the hours people work, which everybody already knows are long, but the number of open items at each desk, a figure nobody in the building has written down before. Engineering is holding nineteen. Stores is holding six. The order desk itself, which would have said it was waiting on everybody else, is holding twenty-two, many of them orders waiting for a fact from a customer that nobody has yet asked for. Little's Law, applied desk by desk, tells them where the days go.

The changes they make are small and they are made in order. First, the order desk agrees to ask two questions on every call that engineering needs answered, the model and the serial plate, and the longest-serving clerk writes them down for everyone. Second, the managers agree that the measure of the week is not how busy each desk is but how long an order takes from call to courier, and that figure goes on the wall where all seven desks can see it. Third, engineering agrees a limit: when its pile passes a number the team chooses, the order desk stops sending it new work for an hour and helps it finish what it has. The house's Luminous 100 has the most useful sentence for anyone tempted to skip the order and buy a tool instead. In its account of lean thinking, "The philosophy is more important than the tools."

Each change has a predictable way of going wrong. The two questions become a form that nobody reads. The lead time on the wall becomes a target that people game by closing orders early. The limit on work in progress is broken in the first busy week by a manager who cannot bear to see an order waiting at the front door, which is where it was always waiting, only visibly. Chapter 7 carries the run sheet for this practice, and Chapter 6 places it in the order of a first ninety days.

There is a gain in all of this, and it is worth naming precisely without inventing its size. Every order that spends fewer days inside the building is cash collected sooner, stock held for less time, and a customer whose kitchen is working again. A firm that halves the work sitting between its desks halves, by Little's arithmetic, the time its orders spend inside, without anyone working harder. That gain is real, it belongs to

the firm's existing people and process, and it can be measured against what the firm already records. How a gain like that is baselined and attributed honestly is the subject of Chapter 5.

Santa Anna's *Ecstatic Economics* uses the same image for a whole economy that the canon uses for a value stream. In the gift economies it describes, to hold wealth back was a sign that the flow of life had become stuck in a person, "that you had become a blockage in the circulatory system of communal wealth." A queue is a smaller version of the same thing. It is value that has stopped moving, held by nobody in particular, on behalf of nobody at all. The book is Ecstatic Economics, and its argument that a firm is a body with a circulation is the one this chapter has been making at the scale of a single desk.

Walking an order in your own building

The order walk is simple enough to start on Monday and subtle enough to go wrong in several ways, and the book can carry the finer points the article left out.

Choose an ordinary item. The temptation is to walk the order that went most badly wrong, because it is vivid and everyone remembers it. It will mislead. An extreme case has extreme causes, and regression to the mean (Chapter 5 returns to it) guarantees that the next one will look better whatever is done. Walk a typical item instead, one that crossed at least three desks, finished recently enough that people remember it, and was not anybody's emergency. Then walk two more. Three ordinary orders tell a truer story than one famous one.

Take times from records where they exist, and from people where they do not. Most firms have more time stamps than they think: the time an email arrived, the time an entry was made in a system, the time a courier was booked. Use them first. Where there is no record, ask the person, and write down that the time is remembered rather than recorded. A walk that mixes the two without saying which is which will be argued over later by whoever dislikes the result.

Count what is waiting, honestly. The number of open items at each desk is the most useful figure the walk produces, and the easiest to undercount. Items waiting for a customer's answer are open. Items parked because they are awkward are open. Items a person is holding in her head because the system has no place for them are open, and they are usually the ones that wait longest. Little's Law works on the true count, not the visible one.

Do the arithmetic in the room. If engineering holds nineteen open orders and finishes about four a day, its share of the lead time is a little under five days. Writing that on a whiteboard, with the two inputs beside it, does more to change a team's mind than any amount of exhortation, because it locates the delay in the number of things being held rather than in anyone's effort. It is also the moment at which people see that they can shorten the wait without working harder.

Change the cheapest thing first. The order of changes matters. Missing information is usually the cheapest fault to remove and the most expensive to leave, because every missing fact creates a round trip through two queues. Fix the questions asked at the first desk before setting any limit on work in progress. Then make the lead time visible. Then set a limit, and set it close to the current count, a little below it, and tighten it as the team learns what it can hold. A limit set far below current reality is broken in the first week, and a broken limit teaches the team that limits are decoration.

Read the spread, not only the average. A customer does not experience an average lead time. She experiences her own order, and she remembers the slow ones. When the walk becomes a weekly figure, look at the slowest tenth of orders as well as the typical one. An improvement that shortens the average while leaving the slowest orders untouched has helped the firm's report more than its customers.

Expect the queue to move. Shortening one desk's queue often reveals the next constraint, and the Luminous 100's note on the theory of constraints is a fair warning that it will not be where anyone expected. That is not failure. It is the walk working. Walk again in a month.

Chapter 6 sets the walk in its place in the first ninety days, after the corridor question and before the measurement conversation, and Chapter 7 carries the walk sheet, the three questions asked at each desk, and the arithmetic laid out so that anyone can do it.

The next Monday

It is ten to nine on a Monday, and a new order is on the coordinator's desk under the strip light. The customer is a school, and the part is a door seal for a walk-in fridge. The sheet has a box at the top, filled in on the first call, with the model and the serial plate. There are four sets of initials down the right-hand side, not seven, because the credit check now happens while the order is entered and stores picks from engineering's confirmation without a second handoff.

The order arrived on Thursday afternoon. It shipped on Friday. The school's caretaker did not ring this morning, because there was nothing to ring about.

On the wall by the order desk the lead time for the month is written in marker, the way the engineers asked for it, in days rather than hours, and beside it the number of open orders at each desk. Nobody is praised for the figure and nobody is blamed. It is simply where all seven desks can see it.

The coordinator's shoulders are where shoulders usually are. She adds up the time on the sheet out of habit. About forty minutes of work, and a little over a day.

CHAPTER THREE

The Question Nobody Asks

The newest person in the room often holds the question that matters, and keeps it in a notebook until someone senior goes first.



The Question Nobody Asks

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Quarter past nine, the notebook

It is a quarter past nine on a Monday, and the planning meeting is on the third slide. The analyst is in her fourth month. She has a notebook open on the table and a pen in her hand, and in the margin of the page she has written one line, underlined twice: *churn = last year's?* The forecast on the screen assumes that the rate at which customers leave will be what it was last year. Last year was before the price change. She has been looking at the cancellation data for a week, because it was her first real task, and the rate since the change looks different to her. She is not sure. She is new, and the people around the table built the model.

The director finishes the slide and says, pleasantly, *Any questions?* There is a pause of about three seconds. The analyst's throat tightens in a way she will later describe as feeling as if the words were physically too large to get out. Nobody speaks. The director moves to the fourth slide. The forecast goes to the board on Thursday.

She is a composite, drawn from the way these mornings are described in the research below and in the house's own practice, and no firm is meant. The board will approve a budget built on last year's churn, and in the second quarter the revenue will come in below plan, and the finance team will spend three weeks finding out why. One of the people who could have told them was in the room in February, with the answer underlined in her notebook.

It is worth slowing down the three seconds, because a great deal happens in them. *Any questions?* sounds like an invitation and works as a closing. It is asked at the end of a slide, by the person who wrote it, in a tone that expects the answer no, and it gives the room a choice between silence and a public challenge to the most senior person present. The analyst weighs, in the time it takes to draw a breath, what she knows about this room: that the last junior person who queried a number was told, kindly, that it had been checked; that the director is busy and the agenda is long; that she might be wrong, and that being wrong in her fourth month would be remembered. None of this is irrational. All of it is accurate. The room has taught her these things, and she has learned them well.

Ammanuel Santa Anna's canon lists this silence first among the things people do not say in meetings, and it describes her almost exactly.[17] "Questions that go unasked. The new hire who doesn't understand the process but has learned that asking "basic" questions signals incompetence."

This chapter makes one claim. The question nobody asks is the most expensive silence in an organisation, because it carries the cheapest correction: a sentence, at the right moment, from the person who noticed. Whether that sentence is said is not mainly a matter of the person's courage. It is a property of the room, and the research on it, read honestly, says that the person who sets the room is usually the one with the most power in it.

The wards that reported more

In the early 1990s Amy Edmondson, then a doctoral student at Harvard, was working on a study of medication errors in hospital nursing units. The study expected to find that the best units, the ones with the strongest leadership and relationships, made fewer errors. The data appeared to say the opposite: the better units recorded more. Her 1996 paper, *Learning from Mistakes Is Easier Said Than Done*, reported the resolution.[18] The differences between units were not only in how often errors happened but in how likely they were to be detected, discussed and learned from. In the units where people felt able to speak about mistakes, mistakes were reported. In the others they were not, and so they looked rarer.

The finding has been told many times, including in this magazine, in a reading of [the margin a leader writes on someone else's work](https://hautelumiere.life/editions/rsd-master-rsd-in-acedemia-final-manuscriptt/page/). It is worth retelling here for what it says about the analyst. The units that looked safest on paper were the ones in which the most information was being lost. A silent room is easy to mistake for a room without problems.

Three years later, in the *Administrative Science Quarterly*, Edmondson gave the condition a name and a measure.[19] Team psychological safety, she wrote, is "a shared belief held by members of a team that the team is safe for interpersonal risk taking." In a study of fifty-one work teams in a manufacturing company, she found that psychological safety was associated with what she called learning behaviour (asking questions, seeking feedback, discussing errors, experimenting) and that learning behaviour in turn mediated the link between safety and the team's performance. A second belief she measured, the team's confidence in its own ability, did not predict learning once safety was taken into account.

Two features of that definition matter for the meeting on the third slide. The first is the word *shared*. Psychological safety in Edmondson's account is not a personality trait of the analyst. It is a property of the team, held in common, and different teams in the same company can have very different levels of it. The second is the phrase *interpersonal risk*. The risk the analyst was weighing was not that she would be fired. It was that she would look slow, or presumptuous, or wrong, in front of the people who would decide how her first year went.

Interpersonal risk is easy to underrate from the head of a table, because the person at the head of a table rarely runs it. The director has been right about enough forecasts, for long enough, that being wrong about one costs her little; she can say *I'm not sure about that number* and be heard as careful. The analyst cannot yet say the same sentence and be heard the same way. The words are identical. The price is not. That asymmetry is what Edmondson's definition captures in the word *interpersonal*: the risk is not in the content of the question but in what asking it does to the asker's standing, and standing is distributed unequally in every room.

Santa Anna's canon describes the arithmetic that keeps such a room quiet, and it is the arithmetic the analyst had already learned in four months: "The less people speak, the less evidence there is that speaking is

safe. The less evidence of safety, the less people speak." In a room where questions are rarely asked, every new person learns from the silence that questions are not asked here, and adds their own.



One hundred and eighty teams

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One hundred and eighty teams

The research reached most managers by another route. In 2012 Google's people-analytics group began a study it called Project Aristotle, asking what made some of the company's teams more effective than others.[20] Its public guide, published on the company's re:Work site, says the researchers "identified 180 teams to study": one hundred and fifteen engineering project teams and sixty-five sales teams. They measured effectiveness through four sources together: evaluations by executives, by team leaders and by team members, and sales performance against quarterly quota. They tested a long list of possible factors, among them seniority, team size, whether members sat together and how much they socialised.

The finding the guide reports is that "what really mattered was less about who is on the team, and more about how the team worked together." It lists five dynamics, in order of importance: psychological safety, dependability, structure and clarity, meaning, and impact. Psychological safety, defined in Edmondson's words, is first. In 2016 the *New York Times Magazine* carried a long account of the project by Charles Duhigg, and from then on it was the study most managers had heard of.

Santa Anna's *Ecstatic Economics* gives the project its strongest form, and it is worth quoting as he wrote it, because the passage is a good example of how far the popular reading has travelled from the evidence. Project Aristotle, the book says, "which studied hundreds of its own teams to discover what made the most effective ones effective, reached the same conclusion: psychological safety was the single most important factor". That is a fair summary of what the guide says. It is a stronger claim than the guide can support, and the guide is candid about why.

Its own account of its method notes that the qualitative assessments "had inherent subjectivity" and that the quantitative measures "lacked situational considerations". The study was conducted inside one company, on its own teams, with its own definitions of effectiveness, and its data and analysis have not been published for outside review. It shows that, among those teams, psychological safety stood out in the company's analysis. It does not show that safety causes effectiveness, or that the ranking would hold in a hospital, a law firm or a distributor. It is best read as a large internal study that agreed with Edmondson's peer-reviewed work, which is worth something, and not as a proof of it.

The house's Luminous 100, its reading of the frameworks every consultancy sells, offers a better way to hold the five dynamics than as a ranked list. Its entry on Project Aristotle reads them as parts of one living thing, the soil, the roots and the fruit, and draws the practical conclusion in a single clause: "you cannot produce fruit by optimizing the fruit; you must nourish the soil." The analyst's question is fruit. It grows, or does not, from conditions set long before the third slide.

There is a reason the project's finding travelled so fast, and it is not only that it came from a famous company. It told managers something they could act on without hiring anyone. If the best teams were made by who was on them, the remedy was recruitment, which is slow and expensive. If they were made by how the team worked together, the remedy was in the manager's own conduct, starting on Monday. That is a hopeful message, and largely a true one. Its risk is that it was quickly turned into a score. Many organisations now survey psychological safety each year and report it on a dashboard, and a score is a useful thing to have. The Luminous 100 warns against stopping there. Its entry suggests that the practice moves from the diagnostic, "how safe do people feel on a 1-5 scale?", to questions a team can answer from its own experience: "When has this team felt most alive? What conditions were present? What made risk-taking feel natural rather than courageous?" A survey can tell a director that her team scores lower than the one next door. Only the second kind of question tells her what to do differently on Monday at a quarter past nine.

What the later studies can and cannot show

The more serious test of Edmondson's idea came from the accumulation of studies that followed it. In 2017 a team led by M. Lance Frazier published a meta-analysis in *Personnel Psychology* drawing on one hundred and thirty-six independent samples, representing over twenty-two thousand individuals and nearly five thousand groups.[21] It mapped what tends to come before psychological safety, including the behaviour of leaders and the support of peers, and what tends to come after, including task performance, learning and the willingness to go beyond one's job. It also examined whether the findings changed with research design and national culture. Two reviews by Edmondson and colleagues, in 2014 and 2023, describe a literature that has grown from a handful of studies into one of the most cited topics in organisational behaviour.[22]

What that body of work shows, with confidence, is a consistent association. In many settings and countries, teams and individuals who report more psychological safety also report, and are rated as showing, more learning, more speaking up and somewhat better performance. What it cannot yet show is as important. Most of the studies are surveys, and many collect the measure of safety and the measure of outcome at the same time, often from the same people; such designs cannot establish which causes which. Some of the relationship may run the other way, since successful teams may come to feel safer. And the effects on performance, while real, are moderate; psychological safety is a condition for good work, not a substitute for skill, structure or a sound plan. Edmondson herself has been at pains to say that it is not about being nice, and not about lowering standards.

One finding runs through nearly all of this work and it is the most useful for a leader. Psychological safety varies a great deal between teams inside the same organisation, as Edmondson's first studies found and later work has repeated. Two teams on the same floor, under the same policies and the same chief executive, can feel entirely different to the people in them, because the climate is set mostly by the person who runs each team and the habits that team has formed. That is discouraging for anyone hoping to fix it with a company-wide programme. It is encouraging for a director, because it means the room she runs is largely hers to change, whatever the rest of the building is doing. The analyst's team is quiet. The team across the corridor, working on the same products with the same data, may not be.

One study is particularly close to the analyst's situation, because it looks at the people with the most to say. In 2007 James Detert and Ethan Burris surveyed more than three thousand employees and two hundred managers in a restaurant chain.[23] They found that managers' openness, their visible willingness to hear and act on suggestions, was more consistently related to employees speaking up with ideas for improvement than the broader style of leadership usually called transformational, and that the link ran through employees' sense of psychological safety. The effect of what leaders did was strongest, they reported, on the voice of the best-performing employees. It is one company, and the measures are surveys. Its message is the one the meta-analysis implies: the people most likely to have something useful to say are the ones most attent-

ive to whether saying it is welcome. On a ward or a shop floor, those are often the people closest to the work, who already know, and Chapter 4 follows them there.

Santa Anna's canon draws the conclusion for practice in a sentence that a cautious reading of this literature supports exactly. Before a leader invites truth, it says, the conditions for telling it safely must be established, and "those conditions must be real, not merely announced."

What the leader does first

Two of Edmondson's studies in hospitals come closest to answering what *real* means, because they watched what leaders did.

In 2003 she reported on sixteen operating-room teams learning to use a new and demanding technique for cardiac surgery.[24] The teams that adopted it successfully were not the ones with the most senior surgeons. They were the ones whose leaders communicated a motivating reason for the change, and who worked to minimise concerns about power and status, so that nurses and perfusionists would speak up with what they saw during operations. In 2006 Ingrid Nembhard and Edmondson surveyed staff in twenty-three neonatal intensive care units engaged in quality improvement.[25] They introduced a term for what the best leaders did, *leader inclusiveness*, defined as "words and deeds exhibited by leaders that invite and appreciate others' contributions", and found that it predicted psychological safety and helped close the gap in safety between higher- and lower-status professions.

Both studies are small by the standards of the meta-analysis and specific to medicine, where hierarchy is steep and its costs are measured in lives. Their value is that they name behaviour. Inclusiveness, in the second paper's sense, is not a mood. It is a set of things a leader says and does, and a team can see them.

Santa Anna's canon puts the same point in the language of the body, and it explains why an invitation alone does not work: "The nervous system doesn't read posters. It reads bodies." The analyst did not decide to stay silent by weighing the evidence. Her throat decided, in three seconds, on the strength of four months of watching what happened to the people who asked. The canon is careful not to blame her for it. "In the absence of genuine psychological safety," it says, "silence is not cowardice. It is rational self-preservation."

It is a humbling sentence for a leader to read, because it means the room reads her more closely than she reads it. The analyst was not watching the slide when the director said *Any questions?* She was watching the director's face, and the half-second glance at the clock, and the slight lift of the voice that signals an agenda to get through. None of these was meant. All of them were seen. A leader who wants questions has to accept that the invitation she issues with her words is checked, instantly and by everyone, against the one she issues with her body, and that when the two disagree, the body is believed. That is not a reason for a leader to perform calm. It is a reason to arrive at the meeting with time in hand, so that the welcome is true.

That sentence turns the problem round. If the silence is rational, the remedy is not to ask people to be braver. It is to change what the room has taught them, which only the person who set the room can do quickly. *The Cairn*, another of the house's books, reads [the four steps between a piece of feedback and the verdict a person hears in it](https://hautelumiere.life/editions/rsd-rsd-and-self-confidence/page/), and the same sequence runs in a meeting: what a leader says, what the room sees on her face, what the newest person concludes, what she does next time.



The director goes first

HAUTE LUMIÈRE · WHERE THE FLOW STOPS · CHAPTER THREE

The director goes first

What changes it, in practice, is a director who decides to spend some of her authority on the room.

At the next planning meeting she does three things differently, and she does them before the slides. She says, in a sentence, what she is least sure about in the forecast, and it is a real uncertainty, not a performance of one. She replaces *Any questions?* with a question that cannot be answered with silence: *If you had to*

check one assumption in this model before Thursday, which would it be? And she goes round the table, starting with the person who joined most recently, so that the newest voice is heard before the most senior one has set the direction. The canon's guidance on mapping the work of an organisation names the reason for that order precisely, as a structure that prevents the highest-status voice from speaking first and drawing everyone else after it.

The analyst says, *Churn. It's last year's rate, and the cancellations since March look higher.* Her voice is quieter than she would like. The director does not say *good question*, which would make the moment about the analyst's courage. She says, *Show me*, and the analyst turns her laptop round, and the head of finance leans in. The model is changed by Wednesday. On Thursday, in front of the board, the director names the analyst as the person who found it.

That last act is the one most leaders skip, and it is the one the research suggests matters most. Detert and Burris's finding was that openness, the visible willingness to act on what is said, predicted voice. A question that is welcomed and then quietly ignored teaches the room exactly what silence taught it. A question that changes a decision, and is credited in a room the asker was not in, teaches the opposite. *The Cairn*, another of the house's books, reads [a second file of recognition that other people keep about us](https://hautelumiere.life/editions/rsd-rsd-and-self-confidence/page/); the board meeting adds an entry to the analyst's, and every person who hears about it adds one to their own estimate of what speaking is worth.

The first month is uneven, and the director should expect it to be. At the second meeting the round produces two real answers and three polite ones. At the third, someone raises a concern that turns out to be mistaken, and the director's response to that moment matters more than her response to the analyst's, because a room learns most from what happens to the person who was wrong. She thanks him, explains in a sentence why the number holds, and moves on without a trace of impatience. By the sixth week the round has stopped feeling like an exercise. People arrive with the assumption they would check, because they know they will be asked.

There are predictable ways for this to go wrong. A leader who asks the question and then argues with the first answer has answered the question for everyone. A leader who praises the asker extravagantly makes asking a performance. And a leader who does this once, after a failure, and not again has taught the room that questions are a crisis measure. Chapter 7 carries the run sheet for this practice, and Chapter 6 places it in the order of a first ninety days.

The gain is easiest to see in the analyst's forecast. A board that approves a budget on last year's churn spends the second quarter discovering the error, and the third correcting it, at the price of a revenue shortfall, a hiring freeze and three weeks of a finance team's time. A board that approves it on the right rate spends nothing. The difference was a sentence, and the sentence was in the room. It is worth being exact about how cheap it was. Asked in February, the question costs the analyst a moment of discomfort and the head of finance an afternoon. Unasked, it costs a quarter of revenue planned on the wrong basis, the de-

cisions made on that plan, and the time of everyone who later has to reconstruct what went wrong, most of whom were never in the meeting. Across a year, across every meeting in which a junior person notices something the model missed, that difference is a gain the organisation already holds and does not collect. The same knowledge, saved for the lift after a meeting, is the more visible half of the loss, and Chapter 1 traces it there.

Santa Anna's *Ecstatic Economics*, whose claim for Project Aristotle this chapter has set beside the evidence, makes a broader argument that the evidence supports better than any single study. Safety, it says of the vitality-centred workplace, is the foundation from which performance emerges, and it adds, of its own argument, "This isn't softness." Ecstatic Economics reads a firm as a living system whose information has to circulate, and a question asked at the right moment is the smallest unit of that circulation.

The round, in practice

The director's round looks like a small change in how a meeting opens. It is, and its finer points decide whether it changes the climate or becomes one more ritual.

Replace the closing question with an opening one. *Any questions?* fails for three reasons: it comes at the end, when the agenda is pressing; it is asked by the person who presented, whom any question will appear to challenge; and it can be answered, by everyone at once, with silence. A working replacement has the opposite properties. It is asked before the material is approved. It assumes there is something to find (*which assumption would you check first?*, *where is this plan most likely to be wrong?*). And it is put to each person in turn, so that silence is not an available answer and nobody has to volunteer.

Choose the order of speaking on purpose. The round starts with the person with least standing in the room, usually the most recent to join, and ends with the most senior. The reason is the one the canon gives for its mapping teams: the highest-status voice, heard first, sets the direction, and everyone after it adjusts, consciously or not. A round that begins with the director's deputy is a round in which everyone else agrees with the director's deputy.

Answer the content, not the courage. When the first real answer comes, the reply that most helps is about the substance: *show me*, *what would we need to check*, *who knows the cancellation data best*. Praise for having spoken, however kind, turns the moment into a test of bravery and tells the room that speaking was unusual. The director in this chapter credited the analyst later, in the board meeting, for the finding, which is the right place for credit: attached to a result, and heard by people whose opinion matters to her.

Handle the wrong answer with more care than the right one. Sooner or later someone will raise a concern that turns out to be mistaken. The room learns more from that moment than from any other, because everyone is watching to see what being wrong costs. The useful response is brief and warm: thank the per-

son, explain in a sentence why the figure holds, and move on with no change of tone. If being wrong in the round costs nothing, people will risk being wrong, and some of the time they will be right.

Watch for the signs that it is working. They arrive in a predictable order. First, the answers in the round become specific. Then people begin to arrive with their assumption already chosen. Then questions start to come before the meeting, in writing, to the person who built the model, which is the best sign of all, because it means the question no longer needs the meeting's protection. A director who sees the third sign can begin to shorten the round.

Do not mistake a score for the climate. Many organisations survey psychological safety each year. The survey is useful as a rough comparison across teams and over time, and Edmondson's measure has been used in hundreds of studies. But a score is a summary of what people were willing to say about safety on a form, and the analyst would have ticked a reassuring box in February. What a director can observe directly, who speaks, in what order, about what, and what happens next, is a better guide to her own room than any annual number.

Know what this does not fix. A round will not make a team safe if the person running it punishes dissent elsewhere, in appraisals, in who gets the next project, in the tone of a private message afterwards. The canon's warning applies with full force: the conditions must be real, not merely announced. The round is a way of showing, every week, in a form the room can see, that they are.

Chapter 6 puts the round in the first month of a ninety-day plan, because the later practices depend on it, and Chapter 7 gives the questions that replace *Any questions?*, the order of speaking and the signs of progress as a page a director can keep beside her notes.

Quarter past nine, again

It is a quarter past nine on a Monday in September, and the planning meeting is on its third slide. The analyst is in her eleventh month. Her notebook is open on the table and there is nothing underlined in the margin, because the two things she noticed over the weekend she sent to the head of finance on Friday, and one of them is already in the model.

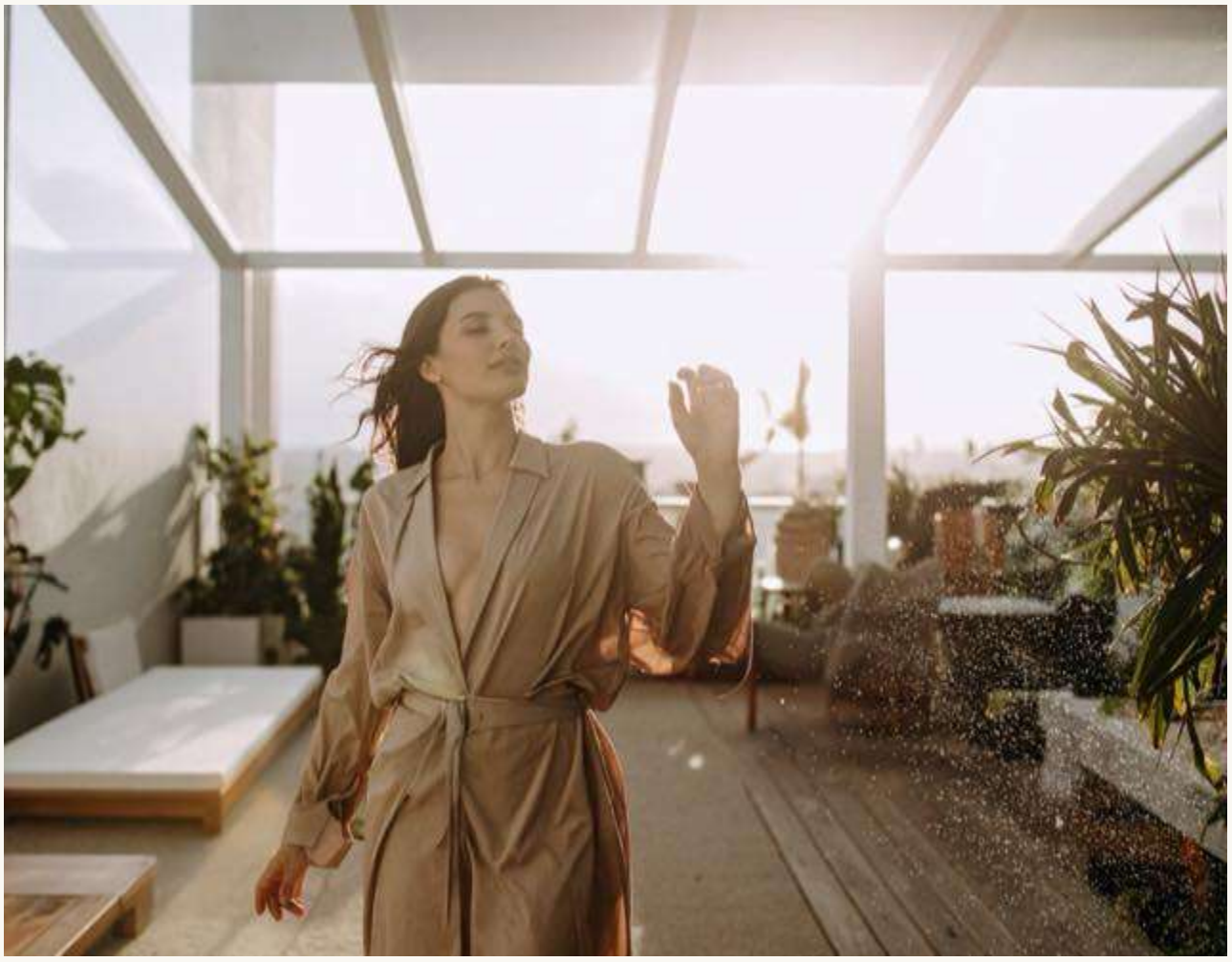
The director finishes the slide. She does not say *Any questions?* She asks which assumption the newest person in the room would check first, and the newest person in the room, a graduate in his second week, looks at the analyst. She nods at him, slightly.

He clears his throat and asks his question.

CHAPTER FOUR

The Person Who Already Knows

The nurse who fetches linen from another unit has solved the problem for her patients, and nobody who could stop it happening has been told.



The Person Who Already Knows

HAUTE LUMIÈRE · WHERE THE FLOW STOPS · CHAPTER FOUR

Clean linen, the night shift

A nurse is working the night shift on an oncology floor, and she has run out of clean linen. Her patients' beds need changing, and the cupboard on her unit is empty. So she walks to another unit, one that has linen in stock, and takes what she needs from its supply. She takes more than one set. She brings back several, for the other nurses on her floor. It takes her a few minutes. The beds are changed. Nobody is told.

This nurse is not a composite. She was observed on an American hospital floor by the researchers Anita Tucker and Amy Edmondson, who described her in a paper published in 2003.[26] When they asked her about it, she said this:

> *"Working around problems is just part of my job. By being able to get IV bags or whatever else I need, it enables me to do my job and to have a positive impact on a person's life—like being able to get them clean linen. And I am the kind of person who does not just get one set of linen, I will bring back several for the other nurses."*

Every manager would want her on the team. She is resourceful, generous and calm. And her resourcefulness is, in the researchers' account, exactly why the hospital will run out of linen again next week. The problem was solved for her patients. It was never reported to anyone who could stop it happening, and the several sets she carried back left a gap in the other unit's cupboard that someone there would solve the same way.

Ammanuel Santa Anna's canon, writing about who in an organisation can see what, puts the nurse's position in two sentences that hold the whole difficulty:[27] "Senior leaders typically have broad but shallow visibility — they see strategic patterns and cross-functional dynamics but may miss the lived reality of frontline work. Frontline workers have deep but narrow visibility — they know their process intimately but may not see how it connects to the larger system." The nurse knows the linen runs out. The hospital, which pays her, does not.

A nurse in her position carries the difference in her body, though few would put it that way. The walk to another unit is a few minutes, taken from patients on a shift that had no minutes to spare, and the paper records the feeling that comes with getting back: seven of the nine nurses interviewed said they felt gratified when they found a way round an obstacle. The gratification is real, and it sits on top of a tiredness it does not lift. Each time a nurse solves the problem this way, she also confirms, to herself and to anyone watching, that this is a problem a good nurse solves alone.

This chapter makes one claim. The largest unclaimed asset in most organisations is the knowledge of the people closest to the work: what fails, how often, and how they get round it. The organisation has already paid for it, in wages and in years of experience, and it spends that knowledge every day on fixing the same problems again, rather than collecting it once and removing them. The gain is in the difference, and the people who hold the knowledge should share in what it is worth.

Thirty-three minutes a shift

Tucker and Edmondson's study was patient work. They observed twenty-six nurses at nine hospitals for a total of two hundred and thirty-nine hours, recording every problem that blocked a nurse from finishing a task, and then interviewed twelve of the nurses at seven of the hospitals. The problems they recorded were not exotic. In their own list: missing medications, regular-diet food trays delivered for diabetic patients, insufficient supplies, and missing medical orders. They were, the authors wrote, "relatively straightforward and embedded in routine processes."

What the nurses did about them was remarkably consistent. The researchers distinguished two kinds of response. In what they called first-order problem solving, the worker gets the supplies or information needed to finish the blocked task and carries on, without addressing why it was blocked. In second-order problem solving, the worker also does something to change the underlying cause: tells the person responsible, raises it with a manager, suggests a fix. The nurses used the first kind, the researchers found, for ninety-three per cent of the problems. Only seven per cent of responses met even lenient criteria for the second.

Then they counted the cost. On average, they estimated, thirty-three minutes were lost per eight-hour shift to coping with system failures that could have been addressed and removed. That is the time of highly trained professionals, every shift, spent on work that need not exist. It is a figure from observation, in American hospitals, two decades ago, and it should be read with those limits. It is also one of the few places in the literature where the cost of the front line's silent knowledge has been measured at all.

It is worth doing the simplest arithmetic on it, because the arithmetic is what a finance director would do. Thirty-three minutes is a little under seven per cent of an eight-hour shift. On a unit that staffs several nurses on every shift, every day of the year, that is the equivalent of a substantial part of a nurse's working time, spent not on patients but on the same missing trays, absent orders and empty cupboards, found and worked round again and again. The calculation is not the paper's; it is the paper's figure set beside the ordinary facts of a ward, and any hospital could do it with its own rota. Almost none does, because the thirty-three minutes appear on no report. They are absorbed, quietly, by people who stay late.

The researchers' explanation of why it happens is the part that should interest any leader, because it is not what a leader would guess. It was not, they wrote, that the problems were hard, nor that the nurses were unmotivated. The nurses were dedicated and capable; most of those observed for a full shift stayed after it ended, unpaid, to finish their patients' care. The pattern was produced by three things hospitals value. A professional norm of individual vigilance taught each nurse to solve her own problems. Lean staffing left no slack to do anything else. And a goal of empowerment, of units able to run without managers, meant nobody above the nurse was there to hear. Each of these is a virtue. Together they produced what the paper calls an illusory equilibrium, a system that felt as if it were coping while it slowly wore out the people coping with it.

Santa Anna's canon has a sentence for the knowledge in that equilibrium, and it fits the linen cupboard exactly. "The truth was never hidden. It was only unspoken. And the difference between hidden and unspoken is the difference between ignorance and courage." The hospital was not ignorant that linen ran out. Some of its staff knew it every night. The knowledge simply never travelled.



Breakfast with the technicians

HAUTE LUMIÈRE · WHERE THE FLOW STOPS · CHAPTER FOUR

Breakfast with the technicians

Tucker and Edmondson's nurses are one well-documented case of a pattern that turns up wherever researchers watch work closely. Another is a group of copier repair technicians studied in the 1980s by the anthropologist Julian Orr, who worked alongside them, and whose book *Talking About Machines* (1996) is one of the classic workplace ethnographies.[28]

The technicians, as John Seely Brown and Paul Duguid described Orr's findings in a widely read 1991 paper, were issued with documentation that told them how to diagnose faults by following a decision tree.[29] The

machines did not always fail in the ways the documentation expected. So the technicians did what skilled people do. They met, over breakfast and lunch and in the car park, and told each other stories about difficult machines, and in the telling they built and shared a working knowledge of faults that the official procedures did not contain. The real diagnostic expertise of the organisation lived in those conversations. Brown and Duguid's abstract puts the general finding plainly: the ways people actually work "usually differ fundamentally from the ways organizations describe that work in manuals, training programs, organizational charts, and job descriptions." And organisations, they noted, tend to rely on the descriptions.

Orr's is a single ethnography of one occupation in one company, and its strength is depth rather than reach. Its finding has been repeated in many other settings, and the philosopher Michael Polanyi had given the underlying idea its best-known form in 1966, in *The Tacit Dimension*: we can know more than we can tell.[30] The nurse knows which unit keeps linen at three in the morning. The technician knows the sound a particular model makes before a fault. Neither experiences this as knowledge; they experience it as how the job is done. That is precisely why it is so seldom collected. Nobody thinks to offer what they do not think of as theirs to offer.

Organisations that notice the problem usually try to solve it by writing things down. They commission a knowledge base, a lessons-learned database, a library of procedures, and the front line is asked to contribute. The effort is well meant and its results are usually thin, for the reason Orr's technicians make plain. Their knowledge was not a set of facts waiting to be recorded. It lived in the telling, in the back-and-forth over a particular machine, in a colleague's question that jogged a memory. Asked to fill in a form, the same technicians would have written down very little, because very little of what they knew took the shape of a form. What collected their knowledge was the breakfast table, and the organisation had not designed the breakfast table. It had merely failed to prevent it.

That is the practical lesson of this research for anyone who runs something. Frontline knowledge is collected mostly through conversation, with someone who can act, at the place and time the work happens. It is collected poorly through systems designed by people far from the work, however good the software.

The economist Friedrich Hayek, writing in 1945 about why central planning fails, made the same point at the scale of an economy.[31] The knowledge that matters most for decisions, he argued, is often not scientific knowledge but "the knowledge of the particular circumstances of time and place", and it is held, dispersed and in fragments, by the people on the spot. Hayek used the argument for prices and markets. It applies with equal force inside a firm, which is a small planned economy whose planners sit furthest from the particular circumstances.

The comparison is not as abstract as it sounds. Inside a firm, prices do not carry information from the floor to the top; reports do, and reports are written by people with reasons to keep them tidy. A market finds out quickly when a supplier is unreliable, because buyers go elsewhere. A hospital finds out slowly that its linen service is unreliable, because its nurses do not go elsewhere. They go to the next floor. The particular

circumstances of time and place are known on every ward at three in the morning, and the planning is done in an office at ten, from a dashboard that has never heard of them.

What the middle sees

If the knowledge is at the front line and the authority to use it is at the top, the obvious place for it to cross is the middle of the organisation. Santa Anna's canon is unusually precise about why it so often does not. Middle managers, it says, "see enough to know that the view from the top does not match the reality at the bottom, but they often lack the authority to act on this knowledge and may be incentivized to smooth the discrepancy rather than surface it."

That sentence describes a nurse manager on a floor like that one, a composite drawn from the paper's account of how units were run, and no hospital is meant. She knows the linen runs short; she has heard about it for months. Her budget is measured on the unit's costs, and the linen comes from a central service she does not control, and raising it again would mark her as a manager whose unit complains. So she smooths it. Her nurses cope, and the cost appears nowhere, because coping is free on every report the hospital produces.

From the top of the hospital the view is clean. The dashboard shows bed occupancy, length of stay, staffing ratios and the cost of the linen contract, which is under budget. Nothing on it says that nurses on three floors spend part of every night walking to other floors for sheets. The senior team is not careless; it reads what it is given, and what it is given has been smoothed twice, once by the nurses who coped and once by the managers who did not report the coping. The canon's phrase for this is broad but shallow visibility. The breadth is real, and so is the shallowness, and the shallowness is not a failing of the people at the top. It is a property of where they stand.

Tucker and Edmondson's sharpest recommendation is addressed to exactly this smoothing, and it inverts what most managers would call a good employee. The ideal employee for organisational learning, they wrote, is not the one who handles any problem without bothering anyone. It is "a noisy complainer, who speaks up to managers and others about the situation, thereby running the risk of being seen as someone who lacks self-sufficiency." It is a startling phrase for a management journal, and it is meant to be. The nurse with the linen was the ideal employee by every measure the hospital used, and the least useful employee for the hospital's learning.

The canon adds the reason the noisy complainer is so rarely believed when she does speak. In most organisations, it says, the executive's observations carry more weight than the frontline worker's, "not because they are more accurate but because the social field assigns them more authority." A report from the floor arrives at a meeting already discounted. *The Cairn*, another of the house's books, reads [the order of the questions in a weekly review, and what that order teaches](https://hautelumiere.life/editions/rsd-rsd-and-

self-confidence/page/); a review that begins with the senior person's account of the week has told the front line, before anyone speaks, whose account counts.

Paid for once, collected never

Put the pieces together and the shape of the gain is clear, even where its size is not. Every organisation employs people who know, specifically and from experience, where its processes fail. It pays for that knowledge every month. It then spends the knowledge on workarounds, thirty-three minutes a shift on one hospital floor, an unknown amount everywhere else, and the problems recur because the people who could remove them never hear of them. The knowledge is paid for once and collected never.

This is not a new observation, and the house is careful not to present it as one. The oldest serious attempt to collect what the people doing the work know, and to share with them what it turns out to be worth, began in a failing steel mill in the late 1930s, and its long record of committees, studies, successes and failures is the subject of a whole book in the economics line, The Gain Was Always Shared. That book reads the evidence on gainsharing with its limits; this chapter does not repeat it. What this chapter adds is the frontline research of the last thirty years, which shows from the other side why such plans work when they do. A plan that pays for ideas without changing who listens has not touched the nurse's equilibrium. A plan that changes who listens, and then shares the gain, has.

The pattern is not confined to hospitals, and leaders outside medicine should resist the comfort of thinking it is. The claims handler who knows which three fields on the form cause most of the rework. The warehouse picker who knows that two bin locations are swapped on the system and has been correcting for it, in her head, for a year. The order clerk in Chapter 2, who knew that model 4 comes in two versions and checked it on every call, while newer clerks did not. Each of them is a nurse with linen. Each is coping, competently, with a fault that someone with authority could remove in an afternoon, and each would describe what they do not as knowledge but as the job.

Santa Anna's *Ecstatic Economics* describes the principle in terms of feedback, and it is the right word. Extractive arrangements, the book argues, sever the connection between what people do and what it produces; its alternatives restore it. Among its examples is "The worker-owner who shares in the consequences of business decisions," and its summary of what all of them achieve is a single image: "In each case, the feedback loop that extractive economics severed has been sutured back together." The nurse's loop is severed twice. Her knowledge of the linen does not reach anyone who can fix it, and the value of fixing it, which would be real, would not reach her.

There is a further reason the people who already know should share in what their knowledge is worth, and it is practical rather than moral. Second-order problem solving costs the person who does it. It takes time she does not have, it risks the label of complainer, and it gives her nothing she did not already have, since

she had already found the linen. A firm that wants the second kind of problem solving is asking its people to take on cost for the firm's benefit. Sharing the gain is how the firm stops asking for that as a favour.

Sharing also changes what the second kind of problem solving means to the people around the one who does it. In a firm where speaking up about a fault earns nothing, the person who does it is a complainer, and the label sticks because there is no other explanation for her behaviour. In a firm where a removed fault produces a measured gain and a visible share of it, the same person is the colleague who found the thing that paid for the team's year. The behaviour is identical. Its social meaning is reversed, and social meaning, as the research on silence in the earlier chapters found again and again, is what decides whether people speak. A share in the gain is not only a reward. It is a public statement, in the one language every organisation reads, that the person who already knew was right to say so. *The Cairn*, another of the house's books, reads [the second file of recognition other people keep about us](https://hautelumiere.life/editions/rsd-rsd-and-self-confidence/page/); a share in a measured gain is that file written in the firm's own accounts.



The other nurse

HAUTE LUMIÈRE · WHERE THE FLOW STOPS · CHAPTER FOUR

The other nurse

Tucker and Edmondson's paper contains a second scene, and it is the one this chapter would have its readers keep. An inexperienced intensive-care nurse transferred a two-year-old patient to the oncology floor and, rather than wake the sleeping child, left him on the specialised intensive-care bed, which needed to go back. Half an hour later the intensive-care unit's nurse manager rang the oncology floor asking for it.

The oncology nurse could simply have returned the bed. That would have been first-order problem solving, and nobody would have faulted her. Instead she rang the intensive-care nurse manager, and said, in the words the researchers recorded: "I don't want to get anyone in trouble, but I want you to know what happened so you can talk to the nurse so that it does not happen again."

The researchers noted the apology at the start of her sentence. It is, they suggested, a sign of how much against the grain her small act was. She had to excuse herself for helping the hospital learn.

What changes this, in practice, is a manager who makes that sentence ordinary. Picture that same composite nurse manager deciding to try. She does three things, in the order the research suggests. She is present, for part of every shift, including nights, because Tucker and Edmondson observed that managers who were physically there were told about problems that managers who were not never heard of. She keeps one place, a page on the wall of the staff room, where any nurse can write a problem in a line, and she reads it every day. And she answers every line, within a week, with what was done or why nothing could be, because the paper's third lever is follow-through, and one of its nurses had put the cost of its absence in a sentence: "No one seems to listen and now no one bothers trying."

The first week the page has eleven lines on it, four of them about linen. The manager takes the four, together, to the central linen service, with dates and times, and the service changes the night delivery. She writes the change on the page beside the four lines, with the names of the nurses who wrote them. The second week the page has nineteen. Several of the lines she cannot fix, and she says so, on the page, with the reason: the pharmacy's delivery times are set by a contract she cannot change this year, and she has raised it with the person who can. That answer, it turns out, is nearly as useful to the floor as a fix. It tells the nurses their line was read by someone who took it seriously, and it tells them where the problem now sits.

The manager notices something about herself in the first month that surprises her. She has her own workarounds. When a nurse is off sick at short notice, she covers the gap by ringing round her own list of people who say yes, and she has never told anyone above her how often she does it. She is, in her own position, the nurse with the linen. The page on the staff-room wall acquires a line in her handwriting. Chapter 7 carries the run sheet for this practice, and Chapter 6 places it in the order of a first ninety days.

None of this is expensive, and all of it is easy to stop doing. The page becomes a suggestion box that nobody reads. The manager answers for a month and then gets busy. The follow-through becomes a form. Each failure teaches the floor, faster than the success taught it, that the old equilibrium was the real one.

What keeps it going is the same thing that kept the workarounds going: it has to be easier, for the person who knows, to say so than to cope.

None of it works if the page becomes, in the canon's terms, a poster rather than a body. The line has to be written in a room where asking is safe, the subject of Chapter 3, and that is decided by what the manager does when the first awkward line appears.

The minutes it frees become money only when they can be counted, and Chapter 5 shows why the counting has to be agreed before the first line is fixed, in a form both sides would sign, or the nurses who wrote the lines will be the last to be credited with what they found.

Collecting what the front line knows

The page on the staff-room wall is the simplest collection system there is, and its simplicity is the point. The book can carry the details that decide whether it works.

One line, in the person's own words, at the place the work happens. The page asks for a problem in a sentence, with a date and, if the writer is willing, a name. It does not ask for a cause, a solution or a category, because each of those is a barrier to writing anything at all. A nurse at three in the morning can write *no clean linen, 03:10* on her way past. She cannot fill in a form.

Read it every day, and answer within a week. Tucker and Edmondson's third lever was follow-through, and its practical form is a promise that every line receives one of three answers within a fixed time: fixed, with what was done; cannot be fixed now, with the reason and who now holds it; or passed to someone named, with the date it was passed. The second answer is as valuable as the first. A line that receives no answer is worse than no page, because it confirms what the nurse who said nobody listens already believed.

Group the lines before acting on them. Four lines about linen on four nights are one problem with four pieces of evidence, and they carry far more weight with a central service than any single complaint. The manager's job is to see the pattern and take it, with its dates and times, to the person who can change the system. This is second-order problem solving done on the front line's behalf, by the one person on the floor with the standing to do it.

Be present. The paper observed that managers who were physically on the unit, for part of every shift, learned of problems that absent managers never heard about. There is no substitute. A page can collect what people are willing to write; a manager on the floor at night hears what they would never think to write, because to them it is simply how the job is done.

Give credit by name, with permission. When a line leads to a change, the change is written next to it with the names of the people who reported it, if they agree. This does two things. It makes the noisy complainer of the research a visible contributor, which reverses the social meaning of speaking up. And it creates the

record that Chapter 5 needs: a dated account of who found what, before anyone has measured what it was worth.

Resist the knowledge base. Sooner or later someone will propose turning the page into a system, with fields, categories and a dashboard. The research on Orr's technicians is a warning. Much of what the front line knows lives in conversation and in the moment, and it is collected best by someone who can act standing next to someone who knows. A system can come later, as a record of what the conversations produced. It cannot replace them.

Watch your own workarounds. The manager in this chapter found that she was herself the nurse with the linen, covering gaps by ringing round people who said yes and telling nobody. Every manager has such habits, and they are invisible to her for the same reason the nurse's were invisible to the hospital. Writing one of them on the page, in her own hand, is the most effective thing she can do to show that the page is meant.

Chapter 6 places the page in the second month of a ninety-day plan, once the round of Chapter 3 has made speaking ordinary, and Chapter 7 gives the page's layout, the three answers and the grouping rule.

Clean linen, a week later

It is the night shift on the oncology floor, and the linen cupboard has clean linen in it. The delivery that used to come at six in the morning now comes at ten at night, because four nurses wrote down, on four nights, when the cupboard ran out, and someone read what they wrote.

A nurse changes her patients' beds without leaving the unit. It takes the few minutes it always took. The difference is the walk she does not make, to a cupboard on another floor, and the gap she does not leave there.

On the page by the staff-room door, under the four lines about linen, there is a fifth in a different hand. It says the infusion pumps on the left-hand side of the ward are always the last to be charged. It is dated tonight.

CHAPTER FIVE

A Number Both Sides Can Sign

A gain can be shared only when both sides trust the count, so the measure is agreed first and read last.



A Number Both Sides Can Sign

HAUTE LUMIÈRE · WHERE THE FLOW STOPS · CHAPTER FIVE

Twenty to eight, the last spreadsheet of the quarter

It is twenty to eight on the last evening of the quarter, and the finance director is the only person left on the floor. On her screen is the scrap report for the plant, and it says what the plant manager has been saying in the corridor for a fortnight: scrap is down by about a third since the summer. Beside the keyboard is a printed sheet she has been asked to sign. It confirms the saving, so that the team on the line, who changed how the presses are set up at the start of each shift, can be paid the share of it they were promised in the spring.

She believes the team did something real. She has seen the new set-up sheets taped to the presses. But she also knows three other things, and they sit in her stomach like a stone. The plant changed its steel supplier in August, and the new coil is more consistent. Volumes were low in the autumn, and the presses ran slower. And the summer, against which the autumn is being compared, was the worst quarter for scrap the plant has had in three years. Any of the three could account for some of the fall. She has no way, at twenty to eight, to say how much.

She is a composite, drawn from the way these evenings are described in the literature on measurement and in the house's own practice, and no firm is meant. If she signs, and the number is partly the steel, the share is paid on a gain the team did not entirely make, and the next time a saving is claimed nobody in finance will believe it. If she refuses, the team that did change the presses learns that its work counts for nothing, and the next idea stays on the floor.

On the line, the same evening, the team leader is finishing a late shift, and his view of the quarter is simpler. In April his people noticed that most of the scrap came from the first hour after each changeover, when the presses were set up from memory by whoever was on, and that the best setters on each shift did it differently from the rest. They wrote the best set-ups down, taped them to the machines, and asked everyone to use them. They did this on their own time, at first, because they were tired of throwing away good steel. He knows his people did something. He does not know about the summer's bad luck or the new coil, and nobody has told him that the number his team will be paid on is being weighed against them. If the share is refused, he will hear only that the work did not count.

Ammanuel Santa Anna's canon, writing on how organisations judge contribution, is careful not to take the easy side of her dilemma.[32] "It is not that measurement is bad," it says. "Measurement is essential. The problem is the adequacy claim". The adequacy claim is the belief that the right metric, found in time, captures the whole of what people contributed. The scrap report is a good metric. It is not adequate, on its own, to tell her whose gain this is.

This chapter makes one claim, and it closes the argument the four chapters before it have made. A gain can be shared only if it is measured in a way both sides believe, and almost all of that belief is earned before anyone knows the answer: in a baseline agreed from records already kept, in adjustments named in ad-

vance, and in a calculation that someone other than the interested parties can check. The finance director's difficulty at twenty to eight is not a failure of arithmetic. It is a decision that was not made in the spring.

The lights at Hawthorne

The most famous measurement in the history of management is also one of the most misremembered. In the mid-1920s, at Western Electric's Hawthorne Works outside Chicago, engineers ran a series of experiments on whether brighter lighting made factory workers more productive. The story that later spread through management textbooks was remarkable: output rose when the lights were turned up, and rose again when they were turned down, and rose in the groups whose lighting did not change at all. The explanation offered was that the workers were responding not to the light but to being studied, and the phenomenon was named the Hawthorne effect. The later and better-documented studies at the same plant were written up by Fritz Roethlisberger and William Dickson in *Management and the Worker* (1939), and they shaped a generation of thinking about attention, morale and output.[33]

For decades the data from the original lighting experiments were thought to have been lost. In 2011 the economists Steven Levitt and John List reported that they had found them, and they analysed them formally for the first time.[34] Their abstract is unusually blunt for an economics journal: "Existing descriptions of supposedly remarkable data patterns prove to be entirely fictional." They did find subtler signs that might be Hawthorne effects, and they proposed a way to test for them. But the dramatic pattern that had been taught to so many students, output rising whatever was done, was not in the records.

The episode is a parable for the finance director, and in two directions. The first is that a striking improvement after an intervention can be produced by things other than the intervention: by attention, by the season, by the way the measure was taken. The plant's scrap fell after the new set-up sheets went up. So did the summer end. The second is that the story of an improvement can outlive the evidence for it by eighty years, if nobody goes back to the records. A gain that is shared on a story, rather than on a measurement both sides agreed, is a gain that the next sceptic can dissolve.

There is a fairer reading of attention, too, and it matters to the team. Being watched is not only a source of false improvement. It is often how real improvement starts: people who know their work is being looked at, by someone who cares about the result, look at it more closely themselves. The line team's set-up sheets began because somebody asked about scrap. The difficulty is not that attention changes behaviour. It is that, without a measurement agreed in advance, nobody can tell which part of a change was the attention, which the season and which the work, and so the people who did the work are the ones most likely to be under-credited or over-credited, and never simply credited.

The house's Luminous 100, its reading of the frameworks every consultancy sells, has a dry line about the most elaborate measurement discipline in modern operations, and it applies to the scrap report as well:

"The discipline is valuable; the cult-like belt system is optional." What matters is not the ceremony around the number. It is whether the number would survive someone going back to the records.



A bad summer

HAUTE LUMIÈRE · WHERE THE FLOW STOPS · CHAPTER FIVE

A bad summer

The second of the finance director's worries has a name, and a history that begins with sweet peas and the heights of children. In 1886 the statistician Francis Galton published a paper on the inheritance of stature, *Regression Towards Mediocrity in Hereditary Stature*.[35] He had measured parents and their grown children, and found that the children of unusually tall parents tended to be tall, but less unusually so; the children of unusually short parents tended to be short, but less so. Their heights, as he put it, regressed towards the average. Galton thought he had found something about heredity. He had found something about measurement: whenever a quantity varies partly by chance, an extreme value tends to be followed by one closer to the middle, whatever anyone does.

Regression to the mean is the most reliable source of false improvement in organisations, and it is at work on the finance director's screen. The summer was the plant's worst quarter for scrap in three years. That is precisely why the line team was asked, in the spring, to do something about scrap: problems attract attention at their peak. And a measure chosen at its peak will, on average, fall afterwards even if nothing is done. Some of the autumn's improvement was the summer's bad luck not repeating.

The same company that ran the Hawthorne lights also produced the best-known instrument for telling the difference. In the 1920s Walter Shewhart, a physicist at the Bell Telephone Laboratories working with Western Electric's manufacturing, developed the control chart, and in 1931 set out its reasoning in *Economic Control of Quality of Manufactured Product*.[36] Every process, his argument ran, shows variation. Some of it is the ordinary noise of a stable system, and some signals that something has genuinely changed, and a manager who reacts to the first as if it were the second will make the process worse, not better. W. Edwards Deming later popularised the distinction as common-cause and special-cause variation. The practical form is modest: plot the measure over a long enough period to see its ordinary range, and treat a point as news only when it falls outside that range or forms a pattern within it. It is the oldest protection there is against reading a bad summer as a baseline.

None of this means the team's work did nothing. It means that the size of what it did cannot be read off a comparison between the worst quarter and the one after it. A baseline drawn from a longer period, a year or two of the plant's ordinary variation, would have shown what a normal quarter looked like, and the autumn could have been compared with that. It would also have protected the team. A baseline taken from a single bad quarter flatters the first period after a change and then punishes every period after that, as the improvement settles into the ordinary range and the comparison stops looking dramatic.

There is a quieter lesson in Galton for anyone who runs a team. A leader who praises the people with the best quarter and corrects those with the worst will tend to see the praised do worse and the corrected do better next time, whatever the praise or the correction contributed, and may conclude that correction works and praise does not. *The Margin*, another of the house's books, reads [what a number beside a name does to the person who reads it](https://hautelumiere.life/editions/rsd-master-rsd-in-acedemia-final-manuscriptt/page/). Read with Galton, much of what a score seems to say about a person in one period is simply the noise of the period.

When the measure becomes the target

The finance director has a third worry, which she has not yet admitted to herself, and it concerns the next quarter rather than this one. If the team is paid on scrap, scrap will be watched. And a number that is watched in order to pay people tends to change in ways that have nothing to do with what it was meant to measure.

The management literature has been saying so for half a century. In 1975 Steven Kerr published a paper whose title has become a proverb, *On the Folly of Rewarding A, While Hoping for B*.[37] Organisations, he argued from a series of cases, routinely reward one behaviour while hoping for another, and then are surprised to get what they rewarded. Four years later the social scientist Donald Campbell, writing on the evaluation of public programmes, put the danger more formally: the more a quantitative indicator is used to make social decisions, the more it is exposed to pressures that corrupt it, and the more it tends to distort the very processes it was meant to monitor.[38] In 1997 the anthropologist Marilyn Strathern, writing about the audit of British universities, gave the idea its best-known modern phrasing, usually credited to the economist Charles Goodhart: when a measure becomes a target, it ceases to be a good measure. Her own abstract puts the deeper point in a sentence any finance director could pin above her desk. Audit, she wrote, "does more than monitor—it has a life of its own that jeopardizes the life it audits."[39]

These are arguments and case studies, not trials, and they should be weighed that way. But the mechanism they describe is easy to picture on the plant floor. Scrap can be reduced by better set-ups. It can also be reduced by reclassifying marginal parts as rework, by slowing the presses, or by running only the easy jobs at the end of the month. A lead time can be shortened the same way, by closing orders early, as the order desk in Chapter 2 was tempted to. A share paid on scrap alone invites all of these, not because the team is dishonest but because people do, in the end, what they are paid for.

Santa Anna's canon draws the line between what can and cannot be counted in a sentence that keeps the measurement and refuses its overreach. "You can measure proxies for trust — survey scores, retention rates, willingness to speak up in meetings. But trust itself is not a number." The same is true of the team's contribution. The scrap rate is a proxy for it, a good one, and the moment the proxy is treated as the thing itself, it begins to drift.

His *Ecstatic Economics* states the principle underneath, and it is the reason the design of a shared measure matters so much: "Money is not neutral. It is a design system, and the design shapes the behavior." A share of a gain, tied to a number, is a piece of design. It will shape what the team does. The question is only whether it was designed to.

There is a simple guard against the drift, and it is old enough to be ordinary. A measure that pays people should almost never travel alone. Beside the scrap rate, a second measure that would rise if scrap were merely moved somewhere else: rework hours, or customer returns, or the speed of the presses. The second measure is not there because the team is suspected. It is there because the team deserves a number that cannot be accused of gaming, and a lonely metric can always be accused.

Savings measured against a baseline

All of this could be read as a counsel of despair, as if no gain could ever be measured well enough to share. The opposite is true, and there is a whole industry that proves it.

For several decades, public agencies in the United States have bought energy improvements to their buildings through energy savings performance contracts. The Department of Energy's Federal Energy Management Program describes them as a way to pursue savings "with no up-front capital costs": a specialist company installs the improvements, and the savings, measured, are what make the arrangement work.[40] The measurement is governed by an international protocol, IPMVP, maintained by the Efficiency Valuation Organization, which writes savings as the baseline minus the energy used in the reporting period, plus or minus adjustments stated in advance.[41]

What makes this relevant to the finance director is not the energy. It is how carefully the measurement is arranged, and when. The programme's guidance on measurement and verification is plain about the baseline. Savings are found by comparing it with the energy used after installation, and once the improvements are installed, "it is impossible to re-create the baseline," so "it is very important to properly define and document the baseline conditions." The plan must also specify, before any saving is counted, "How and why the baseline may be adjusted." A hot summer, a building that gains a floor, a change in opening hours: each is named before it happens, with the method for allowing for it.

That is the shape a shared gain needs, and it can be said in a paragraph without giving away the work of any particular engagement. A baseline that both sides lock at the start, drawn from records the organisation already keeps, over a period long enough to show its ordinary variation. Adjustments for the things that will move the number for reasons nobody controls, named and agreed in advance, with how each will be calculated. A calculation done, or checked, by someone with no stake in the answer. And the result shown to the people whose work produced it, in a form they can read. Which records, which period, which adjustments, which thresholds, and how the share itself is set are questions for each organisation and the people it covers, and they are the substance of an engagement rather than an article. The principle does not depend on them. A gain measured this way is not a story about improvement. It is a number both sides agreed to believe before either knew what it would say.

The independent calculation deserves a word, because it is the part most often skipped. The finance director is not a disinterested party; she runs a budget, and the share is a cost to it. The plant manager is not disinterested either; his standing rises with the saving. Neither of them is dishonest, and neither of them should be the last person to touch the number. A calculation run by someone whose standing does not depend on the answer, in a form both can audit, is what lets each side trust a figure that the other produced. The energy contracts build this in. Most internal schemes for sharing gains do not, and that, more than any formula, is why so many of them end in an argument about the number.

The Luminous 100 makes a remark about the balanced scorecard, the best-known attempt to measure a firm from several directions at once, that applies here: "The strategy map connecting the four perspectives is often more valuable than the scorecard itself." The agreed baseline is the equivalent. Most of its value is in the conversation that produced it, in which the finance director, the plant manager and the team leader

said in the spring what they would count, and why, and what would not count. The number in the autumn is only the end of that conversation.

It is worth saying who that conversation protects most, because the answer is not finance. A measurement agreed in advance protects the people who found the gain. Without it, their share depends on the mood of the quarter, the scepticism of whoever signs, and the story the plant manager tells in the corridor. With it, the share depends on what they did, counted by rules they saw before they started. The people closest to the work, the subject of Chapter 4, are, in nearly every organisation, the ones with least power to argue about a number after the fact. A baseline locked in the spring is the one moment at which they stand on equal terms with everyone else at the table, and it is the moment at which an honest share is decided, long before anyone knows how large it will be.



Signing it

HAUTE LUMIÈRE · WHERE THE FLOW STOPS · CHAPTER FIVE

Signing it

Picture the same finance director a year later, in the same office, at the same hour.

In January, before anyone on the line changed anything, she sat down with the plant manager and the team leader and agreed what they would measure. Scrap, as a share of steel used, over the previous two years rather than the previous quarter, so that the baseline showed the plant's ordinary range. An adjustment for the grade of steel, because the supplier might change again, calculated from the incoming inspection records the plant already keeps. An adjustment for volume, because the presses behave differently when they run slowly. A second measure beside scrap, rework hours, so that reclassifying a scrapped part as a reworked one would show. And a promise that the plant's management accountant, who reports to her and not to the plant, would run the numbers, and that the team would see them every month, on the board by the presses, in the same form she would.

The first conversation was harder than she expected. The plant manager wanted the baseline taken from the summer, because it would make the team's gain look larger, and she had to explain, kindly, that a baseline chosen at the worst point protects nobody: it flatters the first quarter and punishes every quarter after. The team leader wanted rework left out, because rework was another department's problem, and agreed to include it when she pointed out that it was the one measure that would protect the team from the suspicion of moving scrap into rework. Each disagreement took ten minutes. Each would have taken a month to settle in the autumn, after the number was known, when every party would have known which answer favoured them. It was, she thought afterwards, the corridor conversation of Chapter 1 held at the table, before there was a number to argue over.

The team saw the figures every month on the board by the presses, plotted as Shewhart would have plotted them, against the two-year range. In March the line went up, not down, because a batch of steel from the old supplier came in late, and the adjustment the accountant had agreed caught it, and the team leader, looking at the board, saw his people's work protected by a rule he had argued against in January. That was the month the team stopped regarding the measurement as finance's and started regarding it as theirs. In June, when a set-up sheet on one press turned out to be wrong, it was the team that noticed the number and fixed the sheet, before anyone in the office asked. Chapter 7 carries the run sheet for this practice, and Chapter 6 places it in the order of a first ninety days. It does not carry the design of any particular gainshare, which belongs to the organisation and the people it covers.

Every place where an organisation's knowledge stops moving, the corridor, the queue, the notebook and the front line, holds a gain, and none of those gains can be shared until it can be measured in a way both sides believe. That is why the measure is agreed first, and read last.

The oldest attempts to share such gains, and the long record of what made them work and fail, are read in The Gain Was Always Shared.

The argument that a firm is a living system whose value is created by its people, and should circulate back to them, is the subject of Ecstatic Economics.

The house's interest in this is not academic, and it is stated once, plainly. Luminous Prosperity works with organisations to find the gains they already hold, where work and knowledge have stopped moving, and to share in what is found. Sharing is only honest when the measurement is, which is why the house has spent this much of a chapter on the part most consultancies leave to the end.

The measurement conversation, in practice

The finance director's January conversation is the part of this book most worth doing carefully, and the part most often rushed. The finer points below are about how the conversation is held, not about the design of any particular gainshare, which belongs to the organisation and the people it covers.

Hold it before anyone knows the answer. Everything in this chapter depends on timing. A baseline agreed before a change is made is a shared expectation. A baseline agreed after the results are in is a negotiation, and every party will know which answer favours them. If a team has already begun to change its work, agree the measurement now, from now, and accept that the earlier improvement will not be counted. That is a cost, and it is far smaller than the cost of a number nobody trusts.

Have the right people in the room. At least four perspectives need to be present: the person responsible for the money, the person responsible for the operation, someone who speaks for the people whose work will produce the gain, and the person who will do the calculation. If the last of these reports to one of the first two, say so, and agree how the calculation can be checked by someone who does not.

Start with what is being changed, not with the measure. The first question is what the team intends to do differently, in plain words. Only then: what would change in the organisation's existing records if it worked? This order matters because a measure chosen first tends to choose the work, and the work then bends towards the measure, which is the folly Kerr described.

Use records that already exist. A measure that requires new data is a measure that can be disputed. Scrap rates, rework hours, lead times, overtime, returns and complaints are usually recorded already, by people with no stake in the gain. Prefer them.

Look at a long enough history. Plot the measure over a period long enough to see its ordinary range, a year or two where the records allow, and agree what an ordinary quarter looks like before agreeing what an improved one would be. Shewhart's chart is the oldest tool for this and still the clearest. A baseline drawn from the worst recent period, however tempting, flatters the first results and punishes every later one.

Name what will move the number for reasons nobody controls. Volume, the grade of a material, the weather, a price, a change in the mix of work. For each, agree in advance whether it will be adjusted for, from

which record, and how. An adjustment invented after the results are known will be read, correctly, as the side that lost trying to win.

Pair every measure with one that would expose gaming. Scrap with rework. Lead time with complaints. Overtime with backlog. The second measure protects the team as much as the firm, because it is what allows an honest result to be believed.

Agree how the result will be shown. The people whose work produced the gain should see the same figures, in the same form, at the same time as finance. A result that the team first hears about in an announcement is a result the team has no reason to trust.

Write it down, and sign it. One page, in plain words, with the measure, the history, the adjustments, the balancing measure, who calculates and how the result is shown. It is the page the finance director signed in January, and it is why the page she signed at twenty to eight a year later took ten minutes.

What this conversation does not settle, and what this book does not describe, is how a measured gain is then shared: the proportions, the timing, the thresholds, and the terms. Those depend on the organisation, its people and its history, and they are the substance of an engagement. Chapter 6 places the measurement conversation at the end of a first ninety days, after the work it will measure has been found, and Chapter 7 gives the questions in order as a single page.

Twenty to eight, a year later

It is twenty to eight on the last evening of the quarter, and the finance director is the only person left on the floor. On her screen is the management accountant's report, which she has already read twice, and which says the same thing as the board by the presses: scrap is down against the two-year baseline, after the adjustment for steel and the adjustment for volume, and rework has not risen. The figure is smaller than the plant manager's corridor estimate. It is also, for the first time, a figure nobody on either side will dispute.

The printed sheet is beside the keyboard. Her stomach, which a year ago held a stone at this hour, holds nothing in particular. The decisions that made the number trustworthy were made in January, in a room, before anyone knew what it would say.

She signs it, and turns off the light.

A NOTE FROM THE HOUSE

A gain can be shared only when both sides trust the count, so the measure is agreed first and read last. That is the whole discipline of a gainshare. Luminous Prosperity Inc. brings it into organisations, and is paid as a share of the gain it helps find.

REQUEST A CONVERSATION

CHAPTER SIX

The First Ninety Days

Five practices set in order, from listening before changing to measuring what was found.



The First Ninety Days

HAUTE LUMIÈRE · WHERE THE FLOW STOPS · CHAPTER SIX

Monday, day one

It is half past seven on a Monday, and the managing director of a firm of some four hundred people has a clear diary for the first time in months. She has read the first five chapters of a book like this one, or lived them, and she has decided to do something about the places where her organisation stops collecting what it knows. She has a notebook, a coffee and a list of the firm's standing meetings. She does not yet have a plan, and the temptation, which she feels in her shoulders, is to write one by nine o'clock and announce it by Friday.

She is a composite, drawn from the way these first weeks are described in the research the earlier chapters read and in the house's own practice, and no firm is meant. This chapter is written to her, and to anyone in her position: the person who runs something and wants to begin. It describes the first ninety days in order, with who is in the room, what each step needs, roughly how long it takes, the decisions that change the result, the mistakes that are made at each step and how to see them early, how to read what comes back, and what to do on the first Monday. The worksheets and run sheets it refers to are gathered in Chapter 7.

Two things should be said before the plan. The first is that nothing here requires a programme, a budget line or a name. Ammanuel Santa Anna's canon, writing about the relational side of a value stream, puts the warning in two sentences that every first ninety days should begin under:[42] "Relational value is not a program. It is an emergent property of how people are treated within the system." A leader who launches the practices in this book as an initiative, with a title and a slide, will find that people respond to the initiative and not to the practices. The second is that the order matters more than any single step. The chapters were written in the order a reader meets the problem. The ninety days run in the order the practices depend on each other.

Why this order

The five practices in this book are the hallway question (Chapter 1), the order walk (Chapter 2), the round (Chapter 3), the page on the wall (Chapter 4) and the measurement conversation (Chapter 5). In the first ninety days they run in a different sequence: listen, then the table, then the walk, then the page, then the measure.

The reasoning is simple. Every later practice asks people to say something they have been keeping to themselves: a forecast, a question, the time an order sat, a fault they work round every night. People say such things when they believe it is safe and useful to do so, and they decide whether it is safe by watching what happens in the rooms they already sit in. So the first visible change is in those rooms, in the leader's own meetings, where she controls the conditions and everyone can see the result. Only once the table has shown that speaking is received does it make sense to walk the work and ask people where it waits, because the walk depends on honest answers. The page on the wall depends on both: on safety, and on the experience of seeing something that was said get fixed. The measurement conversation is held last, because it measures

what the other four have found. Its first move is made on day ten, though: the history against which any change will be read is copied and fixed before anything changes, for the reason Chapter 5 gives. A firm that begins with the whole conversation has nothing yet to measure, and has taught everybody that the exercise is about numbers; a firm that leaves the baseline to the end has nothing left to measure against.

The canon makes the same argument about perception in a sentence that is worth reading before the first step: "Most organizational interventions begin with the assumption that we already know what's happening in the system." The first ten days are spent finding out.

Who is in the room

Three roles carry the first ninety days, and they should be named before anything else is done.

The sponsor is the most senior person whose meetings and decisions the practices will touch. In a small firm it is the chief executive. In a large one it may be the head of a division or a site. The sponsor's job is not to manage the work. It is to go first in her own rooms, to be present on the floor, and to protect the people who speak. Expect it to take three to five hours a week, most of it inside meetings she already holds.

The working group is small: four to six people. It should include someone who runs operations, someone from finance who will later be part of the measurement conversation, two people from the front line of the work being looked at, and, deliberately, one person who joined the organisation recently, because newcomers still see what everyone else has stopped seeing. The group meets for an hour a week. Its job is to walk the work, read what the page collects, and bring back what it finds. It should not include anyone whose presence would make the front-line members cautious, and the sponsor should ask the front-line members privately, not in the group, whether that is so.

The convenor keeps the record: the dates, the counts, the lines on the page and what happened to each, the decisions taken. Often this is the operations member of the group. The convenor needs about two hours a week, and the one quality that matters most is that people trust the convenor to write down what they said rather than what the sponsor would like to hear.

One decision changes the result more than any other at this stage. The sponsor must decide whether she will do the walk herself, at least once, and stand on the floor at the hours the work is done, including the inconvenient ones. Tucker and Edmondson's observation that managers who were physically present heard about problems that absent ones never learned of (Chapter 4) applies to sponsors with even more force. A sponsor who delegates the floor entirely will receive a summary of it, and the summary will have been smoothed.



Days one to ten: listening before changing

HAUTE LUMIÈRE · WHERE THE FLOW STOPS · CHAPTER SIX

Days one to ten: listening before changing

The first ten days change nothing visible. They gather four inputs, and the sponsor does most of the gathering herself.

The first is a list of the standing meetings in which decisions are made, with who attends and who speaks. The sponsor sits in on two or three she does not usually attend and, in each, does one thing: she counts. How many people spoke? In what order? How long was the silence after *any questions?* What happened in the ten minutes after the meeting ended, and where? Chapter 7 gives the signs of a busy corridor as a single page, and the sponsor ticks them as she sees them.

The second is a list of decisions from the previous quarter that were reopened after they were taken, or that slipped in a way someone could have foreseen. For each, the sponsor asks one or two people, privately, when they first suspected it would go wrong. The question is asked with curiosity and without any sugges-

tion of blame, and the answers are written down. Most leaders who do this are surprised by how early the answers are.

The third is three ordinary pieces of work that crossed several desks recently: an order, a request, a case, a claim, whatever the organisation's work is called. The convenor pulls whatever time stamps the records hold. Nothing is walked yet. The point is to know which items the walk will follow.

The fourth is an inventory of the records the organisation already keeps that bear on the work: scrap, rework, lead times, overtime, returns, complaints, absences, the time stamps in its systems. Finance is asked what exists, how far back it goes and who maintains it. Before day eleven, finance and the convenor copy out the last one to two years of each record that bears on the work likely to change, date the copy and file it unaltered. Nothing is decided about it yet. It is the history the measurement conversation will read on day sixty, fixed before any practice could move it.

At the end of the ten days the working group meets for the first time and writes, on a single page, its first guess at where the flow stops. It is a guess, and should be labelled one: two or three meetings where the corridor is busiest, one or two kinds of work where the waiting seems longest, one or two places on the front line where people seem to be coping with something. The page is kept and revisited on day ninety.

What goes wrong at this stage. The commonest mistake is to announce. A sponsor who tells the organisation that she is starting an initiative on candour or flow will find that the meetings she sits in become performances of candour. The early sign is a question in a corridor: *what is this new thing called?* If people are asking what it is called, it has been named, and the sponsor should stop naming it. The second mistake is to begin with a survey. A survey of psychological safety in week one tells people they are being measured before they have seen anything change, and it produces a score that describes what they were willing to tick. It can come later, if at all. The third mistake is to diagnose. The canon's chapter on attunement is right that perception comes first; a sponsor who writes conclusions in the first ten days will spend the next eighty defending them.

Days eleven to thirty: changing the table

In the third week the sponsor changes two of her own standing meetings. Not all of them; two, chosen because decisions are made there and because the corridor around them is busy.

In each meeting she does three things, every time, in the same order. Before the first decision, she names in a sentence what she herself is least sure about in it. She asks the round question, put to each person in turn, starting with the newest member and ending with herself: *if you had to check one assumption in this before we decide, which would it be?* And before the vote, she asks the hallway question: *what are we saying in the corridor that we are not saying at this table?* Then she waits. Chapter 7 gives the run sheet for both, with the scripts for the moments that matter, and the replacement questions for *any questions?*

The round adds about ten minutes to a meeting of eight people. The hallway question adds whatever its answers need, which in the first weeks is usually very little, because the first weeks produce silence. The silence is not failure. The canon's chapter on acknowledgment describes the right expectation in an image: "Genuine acknowledgment is more like dawn than like a lightning strike." The sponsor should expect three or four meetings of polite answers before the first real one.

The decision that changes the result is what she does with the first real answer, and the second, and above all the first wrong one. Chapter 1 and Chapter 3 describe this in detail. In short: she answers the substance, not the courage; she acts on what was said, visibly, within the week; and she treats a mistaken concern exactly as warmly as a correct one. If she does those three things, the room learns quickly. If she misses one, the room learns that too, and more quickly.

What goes wrong. The sponsor argues with the first answer. She asks the questions only when things are going badly. She asks them in her own meetings but not in her superior's, where her team can see that she says nothing. Or she lets the round become a ritual, the same polite sentences each week. The early signs are easy to read. If the answers in week four are no more specific than in week one, something is being punished somewhere, and the sponsor should ask one person she trusts, privately, what it is. If the corridor after the meeting is as busy as before, the hallway question is being asked too late, or answered with a defence.

How to read what comes back. By day thirty the convenor's record should show a handful of answers that changed something: a date moved, an assumption checked, a dependency given an owner. Chapter 1 described three kinds of sentence that the corridor carries, forecasts, preferences and grievances. The convenor sorts what the round and the hallway question produced into the three, and the working group looks at the forecasts first. They are the gain.

Days thirty-one to fifty: walking the work

In the fifth week the working group walks the three ordinary items chosen in the first ten days. Each walk follows one item backwards, from its completion to its first contact, with the record of times in hand. At every desk the walkers ask three questions and write the answers on the walk sheet in Chapter 7: when did it arrive here; when did someone start on it; what did it need from the previous desk that it did not have?

A walk takes forty minutes to an hour per item. The sponsor walks at least one of the three. On the same days the convenor counts the open items at each desk, honestly, including those waiting for a customer and those parked because they are awkward. The count takes about an hour across a site. Then the group meets for ninety minutes and does the arithmetic of Chapter 2 on a whiteboard: for each desk, the open items divided by the items it finishes in a day, which gives that desk's share of the waiting.

The decisions that change the result are about order. The first change should be the cheapest: the missing facts that cause round trips between desks. In the order walk of Chapter 2 it was two questions asked on every first call, and the longest-serving clerk wrote them down. The second change is to make the elapsed time visible where everyone who touches the work can see it, in days, without praise or blame attached. A limit on work in progress comes third, and is set close to the current count and tightened as the team learns.

What goes wrong. The walkers choose the worst item instead of an ordinary one, and design for an emergency. The count leaves out what is hard to see. The visible lead time becomes a target, and people start closing items early. A manager breaks the first limit in the first busy week. Each has an early sign. If the walk produces a story everyone already knew, it was the wrong item. If the count at a desk is lower than the person there says she is holding, it is incomplete. If the lead time falls sharply in the first week, look at how items are being closed. And if work starts piling up at the front door, the limit is working; it is showing a queue that was always there.

How to read what comes back. The walk produces three things worth keeping: the flow efficiency of each item (time worked divided by time elapsed), the share of the waiting at each desk, and the list of missing facts. The first is usually startling, and should be reported without drama. The second shows where to look. The third is where the first gain usually is. The Luminous 100's note on the theory of constraints is a fair caution for this stage, since the real bottleneck "isn't where you think it is". Walk again in four weeks, and expect it to have moved.

Days forty-one to seventy: the page on the wall

Overlapping with the walk, the working group chooses one or two teams on the front line where the first ten days suggested people are coping with something, and puts up a page. Chapter 4 described it and Chapter 7 gives its layout: one line per problem, in the person's own words, with a date and, if they wish, a name.

Three commitments go with it, and they are made out loud, to the team, by the manager who will keep them. She will read the page every day. Every line will receive one of three answers within a week: fixed, and how; cannot be fixed now, and why, and who now holds it; or passed to someone named, on a date. And she will be on the floor for part of every shift, including the ones she would rather not work.

In the first week the page usually collects a handful of lines, often about the same thing. The manager groups them, takes the pattern with its dates to whoever can change the system, and writes the answer beside the lines with the names of those who wrote them. By the third week there are more lines, and some she cannot fix. She says so, with the reason. This is the step at which the page either becomes part of how the team works or quietly becomes a suggestion box. The difference is almost entirely in the answers.

The decision that changes the result is how the manager treats her own workarounds. Chapter 4's manager found that she had some, and wrote one on the page in her own hand. A manager who does this has shown the team, more convincingly than any announcement, that the page is for everyone, including her.

What goes wrong. Lines go unanswered for a fortnight. The manager answers the easy ones and ignores the awkward. Someone proposes turning the page into a system with categories and fields. A line that criticises another department is taken down. The early signs are visible on the page itself. A page with fewer lines each week is a page people have stopped believing. A page whose lines all concern trivia has been read as unsafe for anything else. And a page with many lines and few answers is worse than no page at all.

How to read what comes back. By day seventy the page and the walk between them should have produced a short list of faults removed, each with a date, the names of the people who found it, and a rough sense of what it was costing: time lost per shift, orders delayed, materials wasted. That list is the input to the last step.



Days sixty-one to ninety: measuring what was found

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Days sixty-one to ninety: measuring what was found

In the last month the working group chooses one or two of the gains found, the ones where the effect is likely to show in records the organisation already keeps, and holds the measurement conversation of Chapter 5. Finance leads it. The operations member, the front-line members and whoever will do the calculation are in the room. The sponsor attends and says little.

The conversation follows the order in Chapter 7: what is being changed, in plain words; what would show in existing records if it worked; what the records show over a long enough history; what moves the number for reasons nobody controls, and how each will be allowed for; what second measure would expose gaming; who calculates, and how it can be checked; how the result will be shown to the people who produced it. The output is one page, signed by the people in the room. The first conversation usually takes two meetings of ninety minutes. Later ones take one.

By day ninety the first monthly figure should be on the wall where the team can see it, plotted against the ordinary range of its history, in the same form finance sees it.

The decision that changes the result is timing, and most of it was taken on day ten, when the history was fixed before the walk or the page changed anything: the January conversation of Chapter 5, begun early. If a team had already begun to change its work before day ten, agree the measurement for that change from now. The earlier improvement is not counted. That is a real cost and a small one beside a number nobody believes.

What goes wrong. The baseline is taken from the worst recent period, because it makes the gain look large. An adjustment is added after the results are in. A single measure is used alone. The calculation is done privately and announced. The early sign of each is the same: someone in the room, often from the front line, goes quiet. The sponsor's job at this step is to notice who has stopped speaking.

What this step does not settle is how a measured gain is then shared with the people who found it: the proportions, the timing, the thresholds and the terms. Those depend on the organisation, its people and its history. They are decided with the people who will be covered, and for an organisation working with Luminous Prosperity they are the substance of the engagement, not of a book. What the first ninety days can do is make that later decision honest, by producing a gain that both sides already believe.

Day ninety: reading what you have

The working group meets on day ninety with five things on the table: the first-guess page from day ten, the convenor's record of the table, the walk sheets and counts, the page from the wall with its answers, and the signed measurement page with its first figure.

It asks a short list of questions, in order. Where was the first guess right, and where wrong? Which decisions changed because something said at the table reached the decision in time? How much of the elapsed time of the work walked was waiting, and has it moved? Which faults on the front line were removed, and who found them? Is there a gain both sides believe, and what does it show? And then the question that matters most for the next ninety days: who has stopped speaking, and who has started?

What not to conclude is as important. Ninety days are too short to say the climate has changed; they are long enough to say whether the practices are being kept. A single month's improvement in a measure is not yet a gain, for the reasons Chapter 5 gave. And an absence of findings is itself a finding. It usually means one of the earlier steps is not yet real, and the first place to look is the table.

The canon describes the effect of steady practice, at the scale of one conversation, in a sentence that fits the whole ninety days: "One degree of additional honesty, practiced consistently, shifts the organizational field more than you might imagine." Ninety days of one degree is a great deal.

What to do on Monday

If the whole of this chapter is too much to begin with, three things can be done on the first Monday, and none of them needs anyone's permission.

Choose one meeting you run, and before its first decision, say what you are least sure about. Then ask each person, starting with the newest, which assumption they would check first.

Choose one piece of ordinary work that finished last week and crossed at least three desks. Add up the time anyone spent on it, and the time it took. Write both numbers down.

And ask yourself, once, the question the canon gives a leader for the end of each day: "What am I not saying that the people I lead need to hear?"

Santa Anna's canon on value-stream mapping says of the lean tools what could be said of every practice in this book: "We do not reinvent these tools because they do not need reinventing. They need companionship." The companionship is the leader's. It is the steadiness with which she keeps them for ninety days, and then for the ninety after that.

Monday, day ninety-one

It is half past seven on a Monday, and the managing director's diary is full again. Two of the meetings in it start with a round. On the wall by the order desk, three floors down, the lead time is written in days. The page in the staff room on the night ward has a column of answers beside its column of lines. In the finance director's drawer there is a signed page with a measure, a history and two adjustments on it.

None of these has a name. Nobody has announced anything. The managing director looks at the first meeting of the week, notes what she is least sure about in it, and closes the notebook.

CHAPTER SEVEN

The Field Manual

Twelve working pages, the run sheets, the walk sheet, the arithmetic and the agreement, ready to carry into a room.



The Field Manual

HAUTE LUMIÈRE · WHERE THE FLOW STOPS · CHAPTER SEVEN

How to use these pages

The chapters of this book describe five practices as people doing them.[43] This chapter holds the working pages: the run sheets, the question sets, the worksheets and the one-page templates that the earlier chapters point to and do not print. Each page is meant to be photocopied, filled in by hand, and kept in a folder that the convenor of Chapter 6 looks after. Nothing here needs software.

The pages follow the order of the first ninety days, not the order of the chapters. Each opens with a line saying where it comes from and when in the ninety days it is used. Where a page gives a script, the words are a starting point; say them in your own voice. Where it gives a time, the time is a planning guide from practice, not a finding.

Two rules govern the whole manual. Write down what people said, not what you wish they had said. And answer everything you collect: a question asked and not answered, a line written and not read, a count taken and not shared, teaches the opposite of what the practice is for.

What these pages do not contain is the design of any arrangement for sharing a gain: proportions, thresholds, timing or terms. Those belong to each organisation and the people it covers, and they are decided separately.

1 · The signs of a busy corridor

From Chapter 1. Used in days one to ten, and again at day ninety.

Sit in on a meeting where decisions are made, and tick what you see. Then ask two people privately about the last decision that slipped.

SIGN	SEEN?	WHERE, AND WHEN
A decision approved in the meeting is reopened by email within a week		
Important meetings have pre-meetings among the people who will speak		
The same three people speak in every review		
Silence of more than three seconds after *any questions?*, then the agenda moves on		
Conversations start in the corridor within five minutes of the end		
A project's owner learns it is late from finance, not from her team		
The minutes record agreement nobody can remember giving		
Asked when they first suspected a slipped decision would slip, people name a date before the decision		

Reading it. One or two ticks are ordinary. Three or more, in the same meeting, mean the meeting and the corridor are holding different assessments. Start the hallway question (page 3) in that meeting.

2 · The two-column page

From Chapter 1, after Argyris and Schön. A private exercise for the sponsor, used once in the first ten days and once at day ninety.

Recall a recent conversation in a meeting that did not go as you hoped. Write it down in two columns. On the right, what was actually said, as near word for word as you can manage. On the left, beside each line, what you were thinking and did not say.

WHAT I WAS THINKING AND DID NOT SAY	WHAT WAS SAID

When it is done, answer three questions underneath.

1. What in the left-hand column would have changed the decision if it had been said?
2. What did I assume the others were thinking, and how do I know?
3. What would I have had to say, and how, for the left-hand column to be said aloud?

Reading it. Most leaders find that the left column holds a forecast and that their right column holds a euphemism of it. That is the gap this book is about, seen from the inside. Keep the page private. It is for your own seeing, not for the team.

3 · The hallway question: run sheet

From Chapter 1. Used from day eleven in two standing meetings, then wherever it helps.

Before the meeting (five minutes). Choose the decision on the agenda most likely to be talked about in the corridor afterwards. Decide what you yourself are least sure about in it, and write it in a sentence.

At the start of that item (one minute). Say your sentence. *Before we decide this, the part I am least sure about is …*

Before the vote (two minutes, plus whatever the answers need). Ask, in these or your own words: *What are we saying in the corridor that we are not saying at this table?* Then wait. Count to ten silently. Do not fill the silence.

When the first answer comes. Thank the person in a sentence, then ask about the substance: *what would we need to check?*, *who knows that best?* Do not ask why it was not raised earlier.

If the answer changes the decision. Defer the decision, name who will test the point and by when, and put it first on the next agenda.

After the meeting (five minutes). Note for the convenor what was said, by whom, and what changed. Note also whether the corridor was quieter.

Sorting what you hear. Put each answer in one column.

FORECAST (WHAT WILL HAPPEN)	PREFERENCE (WHAT I WOULD DO INSTEAD)	GRIEVANCE (WHAT THIS HAS COST US BEFORE)

Forecasts go to the decision. Preferences are noted and weighed. Grievances are separated into their forecast and their history; the forecast goes to the decision, the history to a separate conversation.

Mistakes to watch for. Asking after the vote. Asking in the last five minutes. Arguing with the first answer. Asking only when things are going badly. Asking in your own meetings and not in your superior's.

Signs it is working. By the fourth meeting at least one answer has changed a decision or its plan. By the eighth, people begin to bring their forecast to the meeting without being asked.



4 · The round: question set and order

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4 · The round: question set and order

From Chapter 3. Used from day eleven, alongside page 3.

Questions that replace *any questions?* Choose one per meeting. Each assumes there is something to find, and none can be answered by silence.

- If you had to check one assumption in this before we decide, which would it be?
- Where is this plan most likely to be wrong?
- What would someone who disagreed with this say first?
- What does this depend on that nobody in this room owns?
- What would you want to know before you signed this yourself?
- What did we decide last time that this quietly changes?

Order of speaking. Start with the person who joined most recently or holds least standing. Go round the table in a fixed direction. The most senior person speaks last, and the sponsor last of all.

What to say back.

WHEN	SAY	AVOID
A real point is raised	*Show me. / What would we need to check?*	*Good question.* (It makes the moment about courage.)
A point turns out to be mistaken	*Thank you. It holds because …* then move on, same tone	Any sign of impatience; explaining at length
Someone passes	*Fine. Come back to it if something occurs to you.*	Pressing; a joke
A point criticises your own work	*That's fair. What would you change?*	Defending before you have heard it out

Credit. When a point from the round changes a result, name the person who raised it where it counts, to the people whose opinion matters to them, with their permission.

Progress log. Keep for six weeks.

WEEK	SPECIFIC ANSWERS (COUNT)	ANSWERS THAT CHANGED SOMETHING	QUESTIONS RAISED BEFORE THE MEETING, IN WRITING	WHO SPOKE FOR THE FIRST TIME
1				
2				
3				
4				
5				
6				

Reading it. The signs arrive in order: answers grow specific; people arrive with their assumption chosen; questions start to come before the meeting. When the third appears regularly, the round can be shortened.

5 · The order walk: walk sheet

From Chapter 2. Used in days thirty-one to fifty, for three ordinary items; repeat every four weeks.

Choosing the item. Ordinary, not famous. Finished within the last two weeks. Crossed at least three desks. Nobody's emergency.

Item: Finished on: First contact on:

Walk backwards, from completion to first contact. At each desk, ask the three questions and fill a row. Mark each time R (from a record) or M (from memory).

DESK	ARRIVED HERE	WORK STARTED	WORK FINISHED	MINUTES OF WORK	WHAT DID IT NEED FROM THE PREVIOUS DESK THAT IT DID NOT HAVE?

Totals.

- Total minutes of work (add the column): _____
- Total elapsed time, first contact to completion, in minutes: _____
- Flow efficiency (work ÷ elapsed × 100): _____ per cent

Reading it. Report the flow efficiency plainly. A low figure is ordinary for work that crosses several desks (the order in Chapter 2 held about fifty minutes of work in six days), and it is a description of the system, not of anyone's effort. The right-hand column is where the first change usually is.

6 · The count and the arithmetic

From Chapter 2, after Little (1961). Used on the same days as the walk.

The count. At each desk, count every open item. Include items waiting on a customer, items parked because they are awkward, and items held in someone's head because the system has no place for them.

DESK	OPEN ITEMS TODAY	ITEMS FINISHED PER DAY (AVERAGE OF THE LAST FOUR WEEKS)	DAYS OF WAITING AT THIS DESK (OPEN ÷ FINISHED PER DAY)
Whole system			

Little's Law, as used here. In a stable system, over a long enough period:

> *average time an item spends inside = average number of items inside ÷ average rate at which items are finished*

Worked example, from Chapter 2. About thirty orders are open across the order desks, and the firm ships about five a day. Thirty ÷ five = six. An order spends, on average, about six days inside. To halve that to three days at the same rate of finishing, the number of open orders must fall to about fifteen.

What the law does not tell you. Which item to do first. Why the items are there. What happens in a week when the system is filling up or emptying out. Use it for averages over weeks, not for the next order.

7 · The first changes, in order

From Chapter 2. Used once the walk and the count are done.

1. Remove the round trips. From the right-hand column of the walk sheets, list every fact a desk needed and did not have. Agree who will ask for each, at the first contact. Write the questions down where the first desk can see them.
2. Make elapsed time visible. Put the week's lead time, in days, where every desk that touches the work can see it. Beside it, the open count at each desk. No praise, no blame.
3. Set a first limit. For the desk with most days of waiting, agree a limit on open items close to today's count and a little below it. Agree what happens when it is reached (for example, the desk before it stops sending new work for an hour and helps finish). Tighten it every two weeks while it holds.
4. Walk again in four weeks. Expect the longest wait to have moved.

Watch for. A falling lead time caused by items being closed early. A limit broken in the first busy week. Work visibly piling at the front door, which means the limit is working.

Read the spread. Each week, note the slowest tenth of items as well as the typical one.

WEEK	TYPICAL LEAD TIME (DAYS)	SLOWEST TENTH (DAYS)	OPEN ITEMS, WHOLE SYSTEM



8 · The page on the wall

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8 · The page on the wall

From Chapter 4, after Tucker and Edmondson (2003). Used from day forty-one, on one or two front-line teams.

The page itself. Pin it at the place the work is done, where people pass during a shift. Head it with one sentence: *Write anything that got in the way of the work today. One line is enough.*

DATE AND TIME	WHAT GOT IN THE WAY (IN YOUR OWN WORDS)	NAME (IF YOU WISH)	ANSWER	ANSWERED ON

The manager's three commitments, said aloud to the team.

1. I will read this page every day.
2. Every line will receive one of three answers within a week: *fixed, and how*; *cannot be fixed now, why, and who now holds it*; *passed to (name), on (date)*.
3. I will be on the floor for part of every shift, including nights.

The grouping rule. Once a week, group the lines that describe the same fault. Take each group, with its dates and times, to the person who can change the system. Write the answer beside every line in the group, with the names of those who wrote them, if they agree.

Weekly questions for the manager (ten minutes).

- Which lines are still unanswered after five days, and why?
- Which group of lines points at a system outside this team?
- What did I fix this week that I could have fixed a month ago, had I known?
- What workaround of my own could I write on this page?

Signs it is failing. Fewer lines each week. Lines only about trivia. Many lines and few answers. A line taken down.

9 · The measurement conversation

From Chapter 5. The history it reads is copied and dated by day ten (Chapter 6); the conversation itself is held in days sixty-one to ninety, for one or two gains already found.

Who is in the room. The person responsible for the money. The person responsible for the operation. Someone who speaks for the people whose work will produce the gain. The person who will do the calculation, and, if that person reports to one of the others, the person who will check it.

The questions, in order. Do not skip ahead.

1. What, in plain words, is the team changing about how the work is done?
2. If it works, what would change in records the organisation already keeps?
3. What do those records show over a long enough history (a year or two where possible)? Plot it. What does an ordinary period look like?
4. What could move the number for reasons nobody here controls? For each: will it be allowed for, from which record, and how?
5. What second measure would rise if the first improved only because something was moved elsewhere?
6. Who will do the calculation, and how can it be checked by someone with no stake in the answer?

7. How, and how often, will the result be shown to the people whose work produced it?
8. What happens if a record changes, or a system is replaced, during the period?

The one-page agreement. Fill it in together and sign it before the change begins, or, if it has begun, from today.

What is being changed
Main measure, and the record it comes from
History used, and the ordinary range it shows
Things that move the number that nobody controls, and how each is allowed for
Balancing measure, and its record
Who calculates; who checks
How and how often the result is shown, and to whom
What happens if a record or system changes
Date agreed
Signed

Mistakes to watch for. A baseline taken from the worst recent period. An adjustment proposed after results are known. A single measure used alone. A calculation done privately and announced. Someone in the room going quiet.

Reading the monthly figure. Plot each month against the ordinary range of the history. Treat a point as news only when it falls outside the range, or when several in a row move the same way. One good month is not yet a gain.

10 · The ninety days on one page

From Chapter 6.

DAYS	PRACTICE	WHO	TIME IT TAKES	WHAT IT PRODUCES	EARLY SIGN IT IS GOING WRONG
1–10	Listen: sit in, count, ask about slipped decisions, choose three items, list the records and fix a dated copy of their history	Sponsor, convenor	Sponsor about 4 hours a week	A first-guess page: where the flow stops	People asking what the new initiative is called
11–30		Sponsor	About 10 minutes a meeting	Answers that changed a decision	Answers no more specific in week

DAYS	PRACTICE	WHO	TIME IT TAKES	WHAT IT PRODUCES	EARLY SIGN IT IS GOING WRONG
	The table: hallway question and round in two meetings (pages 3 and 4)				four than week one
31–50	The walk and the count (pages 5 to 7)	Working group; sponsor walks one	About an hour per walk; an hour to count; 90 minutes to read	Flow efficiency, days waiting by desk, the missing facts	The walk tells a story everyone already knew
41–70	The page on the wall (page 8)	Front-line manager	10 minutes a day; presence on every shift	Faults removed, with dates and names	Fewer lines each week
61–90	The measurement conversation (page 9)	Finance leads; operations; front line; calculator	Two meetings of 90 minutes	A signed page and a first monthly figure	Someone in the room goes quiet

11 · The day-ninety review

From Chapter 6. A meeting of the working group and the sponsor, about two hours.

Bring the first-guess page, the convenor's record, the walk sheets and counts, the page from the wall with its answers, and the signed measurement page.

Ask, in order:

1. Where was the first guess right, and where was it wrong?
2. Which decisions changed because something said at the table reached the decision in time?
3. How much of the elapsed time of the work walked was waiting, and has it moved?
4. Which faults on the front line were removed, and who found them?
5. Is there a gain both sides believe, and what does it show so far?
6. Who has stopped speaking in these ninety days, and who has started?
7. Which of the practices is not yet real, and what would make it real?

What not to conclude. That the climate has changed (ninety days show whether practices are being kept, not whether a culture has moved). That one good month is a gain. That an absence of findings means an absence of problems; it usually means one of the earlier steps is not yet real, and the first place to look is the table.

12 · The first Monday

From Chapter 6. For anyone who wants to begin with less.

- In one meeting you run, before its first decision, say what you are least sure about. Then ask each person, newest first, which assumption they would check.
- Take one ordinary piece of work that finished last week and crossed three desks. Add up the minutes anyone worked on it and the minutes it took. Write both numbers down.
- At the end of the day, ask yourself the canon's question: *What am I not saying that the people I lead need to hear?*

Where the flow stops in yours

Somewhere in every organisation an order that holds fifty minutes of work waits six days, and somebody on the floor already knows why.

Luminous Prosperity Inc. takes this work into organisations as a gainshare. The flow is opened from the inside, with the people who already hold what the firm knows. The gain is counted from records the firm already keeps, against a measure both sides sign before anyone knows the answer, and the house is paid as a share of what is found: between thirty and ten per cent of it.

The workbook gives twelve pages for one team. Walking a whole organisation's handoffs, and agreeing a number both sides will sign, is done in the building. That begins with a conversation.

REQUEST A CONVERSATION

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