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Reading the Network: Latour, Scientific Midrash and Eight Clinical Cases

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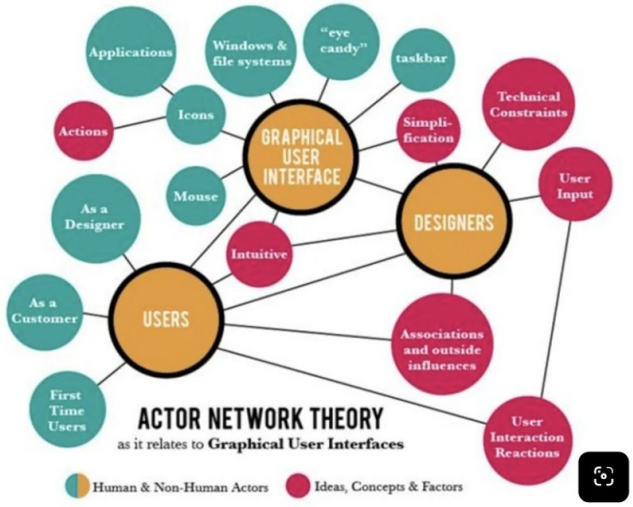
Abstract

Much harm in contemporary medicine is done by networks that are competent at every node. A hospice agency, fourteen specialists, a discharge protocol and a diagnostic algorithm can each be correct on their own terms and still carry a patient toward the wrong outcome. This paper argues that Bruno Latour's actor-network theory (ANT) gives clinicians a precise vocabulary for seeing how this happens, and that a rabbinic reading discipline, which I call scientific midrash, gives them a method for undoing it.

The argument proceeds through eight cases from five decades of neurological practice, drawn from the manuscript The Broken Vessel:
Hermeneutic Medicine and the Sacred Work of Healing. Each case is traced as a network: its inscriptions (charts, printouts, files), its scripts (templates, reimbursement rules, rooms), its chains of translation (referrals) and its crossings between what Latour calls modes of existence (reference, religion, organization, law). In each, the decisive reading lay outside the layer that standard care was reading. In seven cases the re-reading reduced intervention; in one it rightly demanded more.

Three contributions follow. First, Latour's own origins in biblical exegesis, where truth is kept by a disciplined chain of transformations rather than by resemblance, show that midrash and ANT share a theory of fidelity. Second, the rabbinic rule that a verse never leaves its plain sense (ein mikra yotze midei peshuto) functions as a clinical analogue of Latour's circulating reference and keeps interpretation from overriding evidence. Third, the Jewish concept of shleimut (wholeness) supplies the normative criterion that ANT, by design, withholds: it lets a clinician judge which assemblies of humans and non-humans heal and which harm.

Keywords: actor-network theory, Bruno Latour, Annemarie Mol, hermeneutic medicine, midrash, modes of existence, iatrogenesis, neurology, medical humanities.



Introduction: harm by competent networks

An elderly woman is enrolled in hospice with a chart reading "end-stage dementia." Her decline is in fact a delirium caused by a urinary tract infection. No one in the chain was incompetent. The intake nurse followed protocol, the agency followed its admission criteria, the family signed what they were told was expected, and every later reader read the chart. The error was not located in any single person. It was distributed across a chart, a form, a payment model, a frightened family and a word.

Clinical ethics and quality improvement are built to find errors that have an author: the missed sign, the wrong dose, the skipped check. They are less equipped for harm that has no author, harm produced when an assembly of people, documents, machines, rules and rooms performs a plausible story with full technical competence. I will argue that this second kind of harm is common, that it is especially common in chronic and complex illness, and that it is largely invisible to the categories through which medicine audits itself.

Bruno Latour spent his career describing exactly such assemblies. His actor-network theory, developed with Michel Callon, John Law, Madeleine Akrich and others, refuses to separate the "social" from the "technical" in advance. It follows what acts, human or not, and asks how heterogeneous elements are enrolled, translated and held together until they behave as one thing (1-3). Annemarie Mol carried this approach into the hospital and showed that a single disease is enacted differently in the consulting room, the pathology lab and the angiography suite, and that clinical work consists largely of coordinating these enactments (4).

This paper brings Latour's vocabulary to eight cases from my own practice, all drawn from the manuscript The Broken Vessel. It does so in the service of a clinical model I have called hermeneutic medicine, whose cornerstone is scientific midrash: the disciplined application of rabbinic reading practices to the facts, stories and institutions that meet in a clinical encounter. I have set out the model elsewhere (5, 6) and first applied Latour's vocabulary to the hierarchies of the clinic in an earlier paper (7). The claim is not that Latour, and the rabbis say the same thing. It is that each supply what the other lacks. ANT shows who else is acting in the room. Midrash supplies named, rule-governed ways of rereading what they have written. And the rabbinic concept of shleimut, wholeness, supplies a measure by which to judge the result, something ANT has always declined to provide. The model belongs to the hermeneutic and narrative turn in medicine (8–10), and to the scholarship that treats midrash as a rigorous intertextual practice rather than free association (11, 12).

Section 2 sets out the Latourian concepts the analysis needs. Section 3 argues that ANT and midrash share an origin in exegesis and a common theory of fidelity through transformation. Section 4 describes the materials and method. Section 5 traces the eight cases, grouped by the kind of network work that

went wrong. Section 6 discusses what the cases show for ANT, for clinical practice and for the model.

Latour for the clinic

Latour's work is large and has changed over four decades. Seven of its concepts do the analytic work in this paper. I set them out briefly and in clinical terms.

Actants and the principle of symmetry

An actant is anything that makes a difference to a course of action. ANT's founding methodological move is to describe humans and non-humans in the same terms, without deciding in advance which kind of entity does the real acting (2, 3). A door-closer that shuts a door is doing work once done by a porter; the work has been delegated to it (13). In the clinic, the visit template, the scheduling grid, the lumbar-puncture result and the half-open door are actants. They shape what is said and done as surely as the physician does.

Latour distinguishes intermediaries, which carry meaning without changing it, from mediators, which transform what they carry (3). Much clinical machinery is designed and treated as intermediary. The cases below show it acting as mediator: a chart label that changes how every later observation is read, a printout that sets the agenda before the physician speaks.

Translation and the obligatory passage point

Callon's study of the scallops of St Brieuc Bay describes how a network forms through translation: actors are defined, given interests, enrolled and mobilized (2). One actor makes itself an obligatory passage point, a place through which all others must go to get what they want. In clinical life, a diagnosis code is often such a point. Benefits, referrals, reimbursement and even the patient's self-account must pass through it. Whatever the code cannot hold drops out of the network.

Inscriptions and immutable mobiles

Latour's early laboratory work showed that science advances by converting the world into inscriptions, traces that can be stacked, compared and combined (14). He later called these immutable mobiles: documents that travel without changing shape and so can be gathered at a centre of calculation (15). The medical chart is the immutable mobile par excellence. Its power is that it travels intact. Its danger is the same: once "end-stage" is written, it reaches every later reader unaltered, and the patient who might contradict it does not travel with it.

Scripts, de-scription and the configured user

Akrich (16) showed that technical objects carry scripts, implicit scenarios that assign roles to their users. Woolgar (17) described how designers configure the user, shaping the person who will fit the machine. Clinical systems carry scripts too. The electronic record scripts a visit as a sequence of fields; the reimbursement model scripts which outcomes are worth more; the examination room scripts exposure or privacy. Berg (18) showed in detail how decision-support tools reorganize the medical work they claim only to assist. Patients learn these scripts and perform them, often by editing their own stories before they speak.

Black boxes and circulating reference

A black box is a fact or device whose internal complexity is no longer visible because it works (1). A settled diagnosis is a black box. Opening it is costly and usually unwelcome.

In Pandora's Hope, Latour argued that scientific reference is not a single leap between word and world. It is a chain of transformations, each step losing some of the local particular and gaining some portability, from soil to sample to coded drawer to diagram to text (19). Truth is kept by the continuity of the chain, which can be followed in both directions. A break anywhere makes the reference fail. This idea becomes central in Case 4, where a physician re-reads a laboratory result by going back down the chain to the patient.

Modes of existence and category mistakes

In his late Inquiry into Modes of Existence, Latour (20) argued that the moderns run together several distinct ways of making truth, each with its own felicity conditions. He names, among others, reference [REF], religion [REL], law [LAW], organization [ORG], technology [TEC], fiction [FIC] and attachment [ATT]. A category mistake occurs when a statement in one mode is judged by the conditions of another. In Rejoicing, he argued that religious speech is not a weak form of information. It is closer to the speech of lovers: it does not convey content but transforms and makes present the one addressed (21).

Latour had earlier argued that the moderns never in fact kept nature and society apart (22), and that facts are at once made and real, which he called "factishes" (23). Clinical life is a constant crossing of modes. A prognosis is made in [REF]; a hospice enrolment in [ORG] and [LAW]; a dying rabbi's question in [REL]. Several of the harms below are category mistakes: a religious question answered with an organizational referral, a person's history answered with a reference test.

Learning to be affected

In a short essay on the body, Latour (24) used the training of perfumers as a model. A novice learns, with an odour kit, to register differences she could not perceive before. To have a body, he wrote, is to learn to be affected: an articulated subject is one who has become sensitive to more differences in the world. This gives ANT a quiet normative edge. A good articulation is one that registers more. Despret (25) developed the same idea in work with animals. Clinical judgment, including what is loosely called intuition, can be read in these terms.

Mol's body multiple

Mol's ethnography of atherosclerosis in a Dutch hospital showed that the disease is not one object seen from many angles. It is enacted differently in each practice: as pain on walking in the clinic, as a narrowed lumen under the microscope, as a pressure gradient in the vascular lab (4). These enactments do not always agree, and clinical work is the labour of coordinating them into something one can act on. Mol's later work on the logic of care contrasted care, as continuous attuned tinkering, with the logic of choice that treats patients as customers (26,27).

Mol's multiplicity offers a non-metaphorical vocabulary for what the Broken Vessel manuscript has called holding readings "in superposition." I return to this in Section 6.

From exegesis to midrash

Latour the exegete

It is often forgotten that Latour was trained first in philosophy and biblical exegesis. His doctoral work at Tours in the 1970s concerned the exegesis of resurrection texts, and he later described this training as the source of his whole approach (28).

What exegesis taught him was that the Gospels do not transmit their message by faithful copying. Each community re-tells, and in re-telling transforms, what it received. The paradox he took from this was that fidelity is achieved through transformation, not despite it. A message repeated word for word in a new situation may betray its sense; a message translated well may keep it.

This is the same structure Latour later found in the laboratory. Reference is kept not by resemblance between a sentence and a thing but by an unbroken chain of disciplined transformations (19). The insight that founded ANT was, in its first form, an exegete's insight.

The rabbinic chain

Rabbinic tradition holds a closely related theory of fidelity. Mishnah Avot 1:1 opens with a chain of reception: Moses received Torah at Sinai and handed it on to Joshua, and so on through the generations. The Oral Torah is not a copy of the Written; it is its continuous, rule-governed re-reading.

The tradition is self-aware about this. In a well-known aggadah (Menachot 29b), Moses is seated in the eighth row of Rabbi Akiva's academy and cannot follow the discussion. He is comforted only when Akiva attributes a ruling to "a law given to Moses at Sinai." The teaching Moses received has been transformed past his own recognition and is still his. Latour's account of the Gospel communities could hardly be stated more exactly.

The rabbis also accepted multiplicity without dissolving decision. Of the disputes between the schools of Hillel and Shammai, Eruvin 13b holds that "these and these are the words of the living God," and then that the law follows Hillel. Several readings are held as legitimate; one is acted on. This is a precise analogue of what Mol calls coordination among enactments.

What midrash adds to ANT

ANT is a method of description. It follows actors and records their associations, and it is deliberately reticent about how to intervene. Midrash is a method of re-reading under rule. It assumes a fixed text and plural meanings, and it supplies named operations, the middot, for moving between them. The rabbis did not read freely. They read by recognized moves, and a reading that broke the rules could be refused.

Scientific midrash, as I use the term, applies these moves to the clinical text: the scan, the chart, the history, the room. The scientific data play the role of the fixed letters. What they mean for this person is plural. Eight moves recur in the cases below:

Midrashic move	Source	Clinical operation
Al tikrei (do not read it so, but so)	Berakhot 64a	Re-vocalize a label without changing the data
Semichut parshiyot (juxtaposition)	Yevamot 4a	Read two events together because they stand together in a life
Davar ha-lamed me-inyano (learned from context)	R. Yishmael's thirteen *middot*	Let the aside explain the main complaint
Ein mikra yotze midei peshuto (the plain sense binds)	Shabbat 63a	Keep every reading answerable to the scientific peshat
Filling the gap	Bereshit Rabbah 22, on Gen 4:8	Hear what the history leaves unsaid
Kivyakhol (as if it were possible)	Sanhedrin 46a	Speak of God where plain speech fails
Davar acher (another reading)	Sanhedrin 34a, on Jer 23:29	Judge among many readings in the light of the whole
HaMakom (God as Place)	Bereshit Rabbah 68:9	Treat the room as part of the text

Two features make this more than analogy. First, the moves are named and rule-governed, which makes the method teachable and open to critique. Second, one move binds all the others. Ein mikra yotze midei peshuto holds that no verse loses its plain sense, however many further readings it carries. In clinical terms, no interpretation may override the scientific data. It may only read them more fully. This is the rabbinic form of Latour's circulating reference: the chain may be extended, but it may not be broken.

Materials and method

The material is eight clinical narratives from the author's practice as a neurologist, each of which opens a chapter of the manuscript The Broken Vessel: Hermeneutic Medicine and the Sacred Work of Healing. The book contains ten such narratives. Two are held in reserve: a physician's parallel grief (Chapter 7) and a final chapter read with a patient at the end of life (Chapter 10). Patients are identified by initials, and identifying details have been altered as in the manuscript [confirm consent and de-identification match the book].

The cases were not selected to illustrate ANT. They were written over many years for clinical and pastoral purposes and are re-read here through a new lens. This is a strength and a limitation. It reduces the risk that the cases were shaped to fit the theory, but it means the narratives record what a clinician noticed, not what an ethnographer would have documented.

Case format. Each case is presented in a ten-part format designed to give patients and families a voice alongside the clinician's reasoning: presentation; history; examination and testing; diagnosis and the standard approach; the patient's account; the family and the world around the illness; the encounter; where the patient's or family's reading differed from mine; afterwards; and a brief reflection. The format answers a standing criticism of clinical vignettes, that patients and families appear in them only as witnesses to the physician's insight, and draws on anthropological work that locates the moral life of illness in families and local moral worlds (29, 30). Where the record or my memory does not supply the patient's or family's view, the text says so. The network analysis follows each case.

Analytic procedure

Each case was read in four passes.

1. **Inventory of actants.** List every human and non-human element that made a difference to the course of care: persons, documents, codes, devices, rules, payment models, rooms.
2. **Tracing the network's story.** Identify the program of action the assembly was performing, stated as one sentence (for example, "find the broken part"), and the inscriptions and obligatory passage points that held it together.
3. **Locating the break.** Identify where the chain of reference or translation failed, and in which mode of existence (reference, organization, law, religion, attachment) the decisive element lay.
4. **Naming the re-reading.** Identify the midrashic move by which the case was re-read and record its effect on the network and on the patient's shleimut.

For the last step, each case is assessed on a shleimut ledger. The ledger records what the single-layer reading cost the patient in body, money, time, trust, relationships and meaning, and what the re-reading cost. It is qualitative and retrospective. It is

offered as a structured way to make visible losses that standard outcome measures do not count, not as an economic analysis.

Position of the author

The author is the treating physician in every case. ANT warns against privileging any single spokesperson, and the reader should weigh these accounts accordingly. The author's formation in Talmud and Chasidut is not set aside in the analysis; it is the instrument through which the cases were first read and is treated here as one actant among others in the clinical network.

Tracing the networks: the eight cases

The eight cases fall into six patterns of network work. They are grouped here by pattern rather than in chapter order. The table summarizes the analysis; the subsections trace each network.Each case is given first in the ten-part format described in Section 4 and then read as a network.

Case	Network's story	Key actant	Where the break lay	Midrashic move
1. Mrs R.T.	"She is dying"	The chart label; hospice intake	Inscription; [ORG] over [REF]	*Al tikrei*
7. Ms E.C.	"Rule out every item"	The algorithm's printout	Inscription; defensive [LAW]	*Davar acher*
2. Mr J.M.	"Find the broken part"	The referral	A chain of translation never assembled	*Semichut parshiyot*
3. Mrs S.K.	"Address the chief complaint"	Visit template, EHR, schedule	Script; the configured patient	*Davar ha-lamed me-inyano*
8. Ms Y.K.	"Treat the movement disorder"	The room, door and light	Script of space	*HaMakom*
5. Mr T.R.	"Treat the documented trauma"	The disability file	Obligatory passage point	Filling the gap
4. Mr D.W.	"The test has answered"	Bed flow; the guideline	Premature closure of reference	*Ein mikra yotze midei peshuto*
6. Rabbi A.G.	"More treatment, or a referral"	Oncology and palliative pathways	Category mistake: [REL] handled by [ORG]	*Kivyakhol*

Inscriptions that travel: Mrs R.T. and Ms E.C.

Mrs R.T. (Chapter 1)

Presentation. Mrs R.T. was 78, an African American woman with hypertension, type 2 diabetes and mild cognitive impairment. Until three months earlier she had lived independently, managed her own medications and attended church every week. Her daughter brought her for a second opinion after she had been enrolled in a for-profit hospice with a diagnosis of "end-stage dementia."

History. The confusion began with a urinary tract infection. During that hospital admission, hospice representatives approached the family, emphasizing "comfort" and "dignity" and saying little about what forgoing curative treatment would mean. The daughter signed while her mother was still delirious. No neuroimaging, formal cognitive testing or search for reversible causes had been done; an MMSE of 18/30, taken during the infection, carried the diagnosis.

Examination and testing. Three weeks after the infection was treated, she was alert, oriented to person and place, recognized her daughter, recalled her grandchildren's names and worried about "all this fuss." She had mild bradykinesia and walked steadily with a walker. She was wearing an adult diaper supplied by the hospice, though she had no history of incontinence, and was mildly sedated on scheduled lorazepam. MRI showed moderate small -vessel disease without significant atrophy. Sodium was 128 mmol/L, TSH 8.2 and vitamin B12 low-normal. After metabolic correction her MoCA was 24/30.

Diagnosis and standard approach. Delirium superimposed on mild cognitive impairment, caused by infection, hyponatremia and subclinical hypothyroidism. Once she entered the hospice pathway,

it offered comfort medication and expected decline. [Anything fair to say of the admitting team or primary care physician: what the delirium looked like to them, and under what pressure they worked?]

The patient's account. Her one recorded comment was concern about "all this fuss." [What did she understand had happened to her? Did she know she had been enrolled in hospice, and what did she say when she learned it? What mattered most to her: home, church, managing her own pills?]

The family and the world around the illness. Her daughter had felt "pressured" and "scared into signing papers," and had tried to undo the enrollment herself through a process she found impossibly bureaucratic. It was the daughter who refused to accept the decline as final. [Who else in the family was involved? How did the episode change the daughter's trust in physicians and her caregiving load? Did the family believe race or age played a part in how her mother was treated?]

The encounter. I stopped the sedating medications, treated the hyponatremia and started levothyroxine and vitamin B12. I called the hospice medical director, documented the inappropriate enrollment and arranged disenrollment. I spent extended time with the daughter, telling her that her instinct that "something wasn't right" had been correct, and I filed a complaint with the state hospice licensing board.

Where our readings differed. The daughter's reading came before mine and was right: she saw that something was wrong before any physician did. My contribution was to confirm it with tests. [Did she or her mother want anything I did not do, or object to anything I did, such as the complaint to the licensing board?]

Afterwards. Within six weeks she had returned to her baseline. She went back to church and managed her medications with little supervision while her daughter checked in daily. She was stable at one year and lived three more years, dying at 81 of complications of a stroke, with her family around her. [How the family looks back on those years.]

Reflection. A urinary tract infection presenting as dementia is a first-year resident's catch. The harder question is why a whole institution read past it, and what it cost a family to be the only reader who doubted the chart.

Read as a network, the case turns on an immutable mobile. "End-stage dementia" was an inscription that travelled from chart to intake form to care plan without changing shape. Each reader received it as an intermediary, a fact to pass on. It was in fact a mediator: it changed the meaning of every observation that came after it. Confusion, poor intake and frailty were read as confirmation, though they were equally the signs of a reversible illness. The label had become a black box.

The hospice admission was an obligatory passage point. To receive the support the family needed, the patient had to pass through a terminal designation. The reimbursement script then rewarded the story already written. No actor was malicious (31); the network performed the program it was built for. The break lay at a crossing of modes. An organizational and legal procedure [ORG, LAW] had taken the place of a fresh act of reference [REF].

The re-reading was al tikrei. Berakhot 64a reads banayikh, "your children," as bonayikh, "your

builders," without changing a consonant. Here too the letters stayed fixed: confusion, decline, frailty. Only the vocalization changed, from "dying" to "delirious." In Latour's terms, the physician reopened the black box by going back down the chain of reference to the patient and adding new inscriptions: a sodium level, a thyroid panel, an MRI and a repeat cognitive test after correction. The shleimut ledger is stark. The single-layer reading cost a treatable recovery, nearly a life and a family's trust in medicine. The re-reading cost a basic metabolic work-up, an MRI and an afternoon of telephone calls.

Ms E.C. (Chapter 8)

Presentation. Ms E.C. was 56, a software engineer and early adopter of health technology. She arrived with a printout from several AI symptom checkers giving her a 78% probability of multiple sclerosis, 12% of brain tumor and 10% of "other neurological condition." She had already booked an MRI at a direct-to-consumer imaging center and wanted confirmation and disease-modifying therapy.

History. She described three months of intermittent dizziness, occasional numbness in the right hand, fatigue and "brain fog." Asked about her life, she said, "I'm fine. Work is busy. The usual." After a silence: the startup where she had been chief technology officer for twelve years had failed six months earlier. Her husband left three months later, saying she was "too much to be around" when she wasn't succeeding. She had not slept more than four hours a night since April.

Examination and testing. Her breathing was shallow and rapid, her shoulders raised, her arms and legs tightly crossed, her speech pressured. The neurological examination was normal; the numbness could not be reproduced and followed no anatomical distribution. Her MRI was normal. "The algorithm said 78% probability," she said. "How can the MRI be normal?" A sleep study showed severe insomnia with a hyperarousal pattern. Vitamin D was low and thyroid function borderline, and screening showed severe depression and anxiety she had not recognized as such.

Diagnosis and standard approach. Somatic symptom disorder with an adjustment disorder with mixed anxiety and depressed mood, after compound loss and chronic sleep deprivation. Validating the printout would have led to evoked potentials, perhaps a lumbar puncture, and repeated evaluation for a disease that would not appear. The symptom checker had nonetheless brought her to care; it was not the enemy.

The patient's account. She treated her body as she treated code: "Input symptoms, get diagnosis, implement fix. I wanted my body to be as debuggable as software." [What did multiple sclerosis mean to her: disability, dependency, an explanation for her losses? Did a diagnosis feel safer than grief? What did she make of being told the numbness was real but not a lesion?]

The family and the world around the illness. The symptoms arrived in the wake of a failed company and a departed husband. [Children, friends, colleagues? Did anyone know how she was sleeping? Who paid for the direct-to-consumer MRI, and how were her finances after the startup failed?]

The encounter. I acknowledged what the symptom checker had done well, then asked about the startup and the marriage, not to gather data but to witness them. She wept, which she later told me she had

not done since her husband left. I referred her to a psychotherapist specializing in grief and transition and to a psychiatrist, and gave her what I called permission to fall apart: "You're allowed to be devastated. You're allowed to not be okay."

Where our readings differed. She came for one diagnosis and left with another. My framing, that her nervous system was "begging" her to grieve, was an interpretation she had not asked for. Her later words suggest she took it up; the record does not show how hard that was. [Did she accept the diagnosis at first? Did she seek another opinion or keep consulting the symptom checkers?]

Afterwards. At six months her symptoms had resolved. She was sleeping normally with sleep hygiene and low-dose trazodone, had begun to grieve, and had found a new position at a company whose culture permitted vulnerability. [Anything that did not resolve.]

Reflection. The algorithm's differential was defensible as far as it went. What remains for the physician to hear when the machine has already spoken?

The printout is a new kind of immutable mobile and a new kind of spokesperson. In ANT terms, the algorithm speaks for a vast aggregate of prior cases, and it entered the room before the physician spoke. Every item on its list exerted pressure toward a test. Defensive medicine, itself a script written by the legal mode, converted that pressure into orders. The patient, frightened by the list, had already booked her own MRI and asked for disease-modifying therapy, and the network stood ready to answer.

The re-reading was davar acher. Sanhedrin 34a, on Jeremiah 23:29, compares a verse to a hammer that sends out many sparks. A differential diagnosis is itself a list of other readings. The midrashic discipline is not to multiply readings without end but to judge among them in the light of the whole text. Here the whole text included her crossed arms. Reading her grief first allowed the list to be weighted by her actual life, and spared her evoked potentials, a lumbar puncture and repeated imaging for a multiple sclerosis that was not there. The algorithm was not discarded. It was demoted from spokesperson to one voice in the room (32).

A chain of translation that never closed: Mr J.M.

Mr J.M. (Chapter 2)

Presentation. Mr J.M. was 52, a Polish-American construction foreman, with eight years of burning pain: "my whole right side is on fire." He had seen fourteen specialists in three health systems and carried diagnoses of fibromyalgia, complex regional pain syndrome, somatoform disorder and "chronic pain syndrome—etiology unclear." His record ran to more than 2,000 pages.

History. He was taking gabapentin 3,600 mg daily, oxycodone 30 mg four times daily, duloxetine 120 mg daily and tizanidine 8 mg three times daily, and rated his pain 8/10 on good days and 10/10 on bad ones. He held his right arm guarded against his chest. His account began, as always, with a work injury: lifting a beam, he "felt something pop." Asked what else was happening in his life, he paused. His father had died three weeks before the injury. They had not spoken in fifteen years.

Examination and testing. Light touch was painful over the whole right side, scalp to sole, respecting the midline. Initial give-way weakness resolved to

full strength with distraction; reflexes, proprioception and vibration were normal. When he spoke of his father, his right hand clenched. Asked about it, he said, “That’s the hand I used to… when we fought.” Prior testing included three brain MRIs, two cervical and two lumbar spine MRIs, electrodiagnostic studies, quantitative sensory testing and a skin biopsy, all essentially normal. I ordered nothing further.

Diagnosis and standard approach. A functional hemibody pain syndrome with conversion features, carrying unresolved grief. Earlier care had searched competently for a lesion and, finding none, had reached for labels and escalating medication. Psychiatry had offered antidepressants and the suggestion that the pain was “not real.”

The patient’s account. [After eight years, what did he believe was wrong with him? Did he resist the connection to his father at first? What had being told the pain was “not real” done to him? Was he still working as a foreman, and what had the pain cost him there?]

The family and the world around the illness. The illness began inside a fifteen-year estrangement that his father’s death made permanent. [What had the quarrel been about? Was there a wife, children or siblings, and how did eight years of pain and opioids shape their life with him? Were workers’ compensation or litigation involved?]

The encounter. I told him, “Your pain is real. Your body is telling you something important.” Over months we mapped when the pain flared: at thoughts of things left unsaid, at the cemetery he had avoided for eight years, on his father’s birthday, on the anniversary of the death and on Father’s Day. I referred him to a somatic experiencing therapist and began a slow, patient-directed opioid taper.

Where our readings differed. The reading of the “pop” as the moment his defenses gave way, and of the right hand as the hand of the quarrel, is mine. [Did he accept it, revise it or reject parts of it? In his own words, what happened at the grave?]

Afterwards. The turning point came when he visited his father’s grave for the first time, placed his right hand on the headstone and felt the fire “drain out through my palm into the earth.” His allodynia measurably improved. At eighteen months he was off opioids, taking low-dose gabapentin, with pain at 2–3/10. [Work, family and relationships at follow-up.]

Reflection. I could easily have been the fifteenth specialist. The question that changed the case is one no template prompts and no billing code rewards.

This is a network of translations, each locally faithful. The referral letter is the translating device. Each one re-stated the problem in terms the next specialist could accept: is there a lesion; can this nerve be blocked; will this drug help. Each translation narrowed the question and each answer was correct. The network's program, "find the broken part," was performed for eight years by actors who never met.

Callon's model predicts what happened. Translation enrols actors by redefining their interests, and what the redefinition leaves out is no longer in the network. The father's death was never inscribed, so it had no existence for the referral chain. No centre of

calculation gathered the fourteen readings into one. The patient alone held them all, and no one asked him.

The re-reading was semichut parshiyot. Yevamot 4a teaches that passages placed side by side are read together. The chart had separated two passages of one life: the pain began here; the father died here. Juxtaposing them did not deny the neurophysiology of a sensitized nervous system. It gave it a context, and the plan changed (33). Mourning could be completed, with a somatic therapist's help and finally at his father's grave, and the body followed. The ledger records eight years, fourteen specialists, seven MRIs, electrodiagnostic studies, a skin biopsy, escalating opioids and a record of more than 2,000 pages, against one question that cost nothing.

Scripts and the missing masses: Mrs S.K. and Ms Y.K.

Latour (13) called the non-human actors that sociology ignores "the missing masses." Two cases turn on them.

Mrs S.K. (Chapter 3)

Presentation. Mrs S.K. was 63, an Indian-American retired accountant referred for "probable early Alzheimer's disease." [Who she lived with besides her husband, and who brought her to the appointment.]

History. She described three years of word-finding difficulty, mental "fogginess" and spells in which she "blanked out" for several seconds. An MRI had been read as "age-appropriate atrophy," her MMSE was 26/30, and donepezil had brought no improvement. I booked her for an hour and listened for fifteen minutes without taking notes. Then she asked, "May I tell you something that probably doesn't matter medically?" Her mother, dead thirty years, visited her in dreams with a warning she could not understand, and by day she would suddenly smell her mother's rose water. "My husband thinks I'm losing my mind."

Examination and testing. Before formal testing I noticed asymmetric nostril flaring, brief pauses in her speech as if she were listening inwardly, and a slight right head tilt. Recall was 1/3 at five minutes and serial sevens were slow; the rest of the examination was normal. The spells brought a metallic taste and something "almost like déjà vu but more intense." No EEG had been done. Hers showed left temporal epileptiform discharges.

Diagnosis and standard approach. Left temporal lobe epilepsy with olfactory auras and dreamy states, misread as dementia. Her primary care physician had recorded the rose-water smell as a possible dementia symptom; in a 63-year-old with memory complaints, the dementia pathway was not unreasonable. What it lacked was the open question.

The patient's account. She had believed she was going the way of an aunt "who had Alzheimer's and didn't recognize her own children at the end." [What she feared most; what the dreams of her mother meant to her before the diagnosis, including any religious frame; why she had held back the rose water.]

The family and the world around the illness. Her husband thought she was losing her mind. [Did he come to appointments? What did three years under a dementia label do to the marriage, to driving and finances, to her children's plans?]

The encounter. The diagnosis came from a sentence she almost did not say. [When epilepsy first occurred to me, and how she took the diagnosis in the room.]

Where our readings differed. For me, her mother's visits were seizure semiology and the key to the diagnosis. For her, once explained, they were a relief from meaning: "It wasn't madness. It was just electricity." [Did she miss the dreams, or did they keep any meaning for her?]

Afterwards. Levetiracetam stopped the spells within two weeks. Her word-finding normalized by six weeks and her MoCA was 29/30 at three months. Donepezil was stopped, and she remained seizure-free at five years. [Her side of the recovery.]

Reflection. The listening that found the diagnosis was interpretive; the healing she wanted was mechanical. What does careful listening owe a patient who wants her experience explained rather than interpreted?

The electronic record, the visit template and the scheduling grid had co-authored every prior encounter. Each carried Akrich's kind of script: fill these fields, in this order, in this time. Over years the script had configured the patient as surely as Woolgar's designers configure their users. She had learned that her life did not belong in the room and pre-edited it before she spoke. Her apology, "this probably doesn't matter," is the trace of that configuration.

The re-reading was davar ha-lamed me-inyano, one of R. Yishmael's thirteen middot: a matter is learned from its context. Midrash routinely finds the key to a passage in a clause the casual reader skip. What the script had made peripheral was central. The enabling condition was a change of script. Fifteen minutes of unpressured time are not a sentiment. They are a material rearrangement of the network that allows a different actor to speak (34).

Ms Y.K. (Chapter 9)

Presentation. Ms Y.K. was 34, a Korean-American first violinist in a major opera orchestra, which she had joined eight years earlier after winning an international competition. Critics called her playing "technically flawless" and "mathematically precise," praise she repeated with notable ambivalence. Her complaint was "My hand won't obey me anymore."

History. Over eighteen months, cramping in the left hand during rapid passages had progressed to involuntary flexion of the fourth and fifth fingers and then a dystonic posture of the whole hand. It began ten to fifteen minutes into playing, occurred only with the violin, and came with an aching forearm pain she rated 7/10. Two neurologists and a hand surgeon had diagnosed musician's focal dystonia; three cycles of botulinum toxin and trials of trihexyphenidyl, baclofen and gabapentin had failed. Over two ninety-minute sessions she described a childhood in Seoul, a physician father, a mother who had given up a career as a concert pianist, a violin placed in her hands at four ("not a choice but an assignment"), and eight hours of practice a day since the age of fourteen. Her parents emigrated when she was sixteen so that she could study at a conservatory.

Examination and testing. The examination at rest was normal. When she played in my office, symptoms began at about twelve minutes. Several fea-

tures argued against an organic dystonia: it resolved at once when she stopped, she could extend the fingers against resistance during an episode, the posture varied, and onset was later and milder when we talked about her childhood memories of music. MRI, electrodiagnostic studies (with no agonist–antagonist co-contraction) and metabolic and Wilson's disease screening were normal.

Diagnosis and standard approach. A functional neurological disorder presenting as task-specific dystonia. The earlier label had led to treatment aimed at the muscles. [Decide how to describe the colleagues' diagnosis: the book calls it both "correct" and a label applied "despite the absence of supporting evidence."]

The patient's account. "I was raised to understand that excellence was not optional," she said. "In Korean culture—or at least in my family's interpretation of it—you do not simply try your best. You succeed. … If I failed, I would not be someone who failed; I would be a failure." She had thought of quitting every day for two years. "They sacrificed everything for my music. How can I tell them I'm not sure I want this anymore?" And then: "Sometimes I think my hand is doing what I can't do. It's refusing to play so I don't have to refuse."

The family and the world around the illness. Her father had given up his medical practice and her mother had left her extended family and homeland. Three months into treatment she had her first honest conversation with them. Her mother wept and confessed similar feelings about the career she herself had abandoned. [Her father's response; whether she had a partner; what leaving the orchestra cost her financially.]

The encounter. I explained that functional disorders are real neurological conditions arising from how the brain processes emotion and conflict, not from structural damage. I reflected back that her body might be doing what her conscious mind could not permit. I referred her to a Korean-American psychotherapist experienced in intergenerational conflict and to somatic experiencing therapy. These conversations took place in a quieter room than her earlier examinations.

Where our readings differed. She named the dystonia's meaning before I did; my contribution was to take her reading seriously. Her own qualifying clause, "or at least in my family's interpretation of it," is also a caution against reading culture as a cause. [Did she reject any part of my framing, of her parents or of culture?]

Afterwards. At six months she could play for thirty to forty-five minutes: "It's less perfect but more alive." At twelve months she left the orchestra for conservatory teaching and cut her practice from eight hours to two. At eighteen months the dystonia had resolved, and she chose not to return to orchestral performance. "The dystonia gave me permission to leave," she said. Her mother began playing the piano again for the first time in thirty years.

Reflection. The same findings had been read three times in rooms built for exposure and hurry. What part did the room play in what she was finally able to say?

Here the missing masses are architectural. The light, the half-open door, the hard chair and the corridor beyond are actants. Their script was exposure and hurry. Three competent examinations were made in that space, and none reached the part

of her that held the dystonia in place. The neurological reading stood unchanged; what changed was the assembly in which it was made.

The re-reading was HaMakom. Bereshit Rabbah 68:9 asks why God is called "the Place" and answers that He is the place of the world. The rabbis made place a name of the Holy One. ANT reaches a parallel conclusion by a secular road: the setting is not a backdrop to the encounter but a participant in it (35). A different room allowed a different reading, and once the story could be told aloud, the hand no longer had to tell it.

The file as obligatory passage point: Mr T.R.

Mr T.R. (Chapter 5)

Presentation. Mr T.R. was 38, an Iraq War veteran referred for "treatment-resistant PTSD with chronic pain syndrome" after twelve years of psychiatric care and eight hospitalizations for suicidal ideation.

History. He had tried sertraline, paroxetine, venlafaxine, prazosin and quetiapine. He was now taking oxycodone 20 mg four times daily for back pain attributed to an IED blast, alprazolam 1 mg three times daily, zolpidem and trazodone, and drank "a six-pack most nights." His records centered on the blast. He told me about something else. On a night raid he had shot an Iraqi teenager he believed was reaching for a weapon; it was a flashlight. "I see his face every night," he said. "I can't tell anyone at the VA. They keep asking about the explosion. The explosion was nothing. I barely remember it."

Examination and testing. He was hypervigilant and sat with his back to the wall; his resting heart rate was 102 and his startle response marked. He had hyperreflexia, ankle clonus and a mild intention tremor, probably medication-related. The back examination was unremarkable, but when I palpated his paraspinal muscles he flinched: "That's where I felt the kick of the rifle." I ordered no imaging; three earlier MRIs had shown only mild degenerative change. A formal assessment confirmed severe moral injury, with guilt and shame rather than fear as the dominant affects.

Diagnosis and standard approach. Combat PTSD with moral injury, complicated by iatrogenic polypharmacy, opioid dependence, alcohol use disorder and somatized pain. Guideline care had been delivered diligently: first-line agents, prazosin, hypnotics, then benzodiazepines and escalating opioids, all aimed at a disorder of fear.

The patient's account. In his account the wound was guilt, not fear, and the explosion was beside the point. [What did he believe he deserved? How did he understand his suicidal crises? What did he want from the first visit?]

The family and the world around the illness. The VA file, built around the blast, organized his care, his benefits and the recognition he received. [Partner, children, parents? Who lived with the drinking and the hospitalizations? Did anyone at home know about the raid?] The family of the boy who died remains outside every account.

The encounter. We spent three sessions with no agenda but presence, until his startle visibly lessened. Over six months, with his full participation, we tapered the benzodiazepines and then the opioids, replacing them with trauma-sensitive yoga and breathing practice. I referred him to a chaplain trained in moral-injury work and to a veterans'

peer group using modified twelve-step principles. Trauma processing came later, through somatic experiencing rather than the exposure therapy that had retraumatized him.

Where our readings differed. My framing calls his recovery tikkun, repair. He refused that resolution: "I'm not healed. I'll never be healed—I killed a child." His words, not mine, should govern how the outcome is read.

Afterwards. Eighteen months in, he wrote a letter he would never send to the boy's family and read it aloud in his peer group, weeping for the first time since the raid. At three years he was off psychiatric medication except low-dose prazosin, sober for two years, sponsoring other veterans, with pain at 2/10 without opioids, and working part-time as a peer counselor at the VA. "That boy's death doesn't have to mean nothing," he said.

Reflection. Twelve years of treatment had orbited the wrong wound. What does a system built on documents owe a wound it has no field for?

Once a trauma is documented, a network assembles around the document. Disability files, benefit reviews, specialist letters and pharmacy records all refer to it and to one another. The file becomes an obligatory passage point: care, money and recognition flow through it. The patient learned to tell the explosion story because it was the story that got him care. In Latour's terms, he had been enrolled as the spokesperson of his own file.

The other wound had no inscription and so no existence in the network. This is a structural feature of inscription-based systems, not a lapse of individuals. What has not been written cannot travel to the centres where decisions are made.

The re-reading was filling the gap. Genesis 4:8 says that Cain spoke to Abel and then does not say what he said; Bereshit Rabbah 22 hears the missing words. Midrash treats a gap in the text as a place where something happened. Hearing about the night raid did not erase the explosion; both were real. It changed what every other element meant. Polyvagal physiology explained why his body had never stood down (36). A twelve-step community became a place to continue the confession, a form of viduy already practised among its members (37, 38). The medication list could finally be read against the right target. The turn required no new imaging, only a room and an ear that would not hurry him.

Learning to be affected: Mr D.W.

Mr D.W. (Chapter 4)

Presentation. Mr D.W. was 41, an African American high-school basketball coach, with three days of the worst headache of his life, neck stiffness and photophobia.

History. A lumbar puncture in the emergency department showed an opening pressure of 28 cm H_2O, 87 cells with 92% lymphocytes, protein of 98 mg/dL and normal glucose. The emergency physician diagnosed viral meningitis and planned discharge, and the infectious disease consultant agreed. His wife insisted that he be admitted, and I was consulted as the attending neurologist.

Examination and testing. He had a temperature of 38.2 °C, severe neck stiffness and positive Kernig's and Brudzinski's signs. Also present, though subtle and intermittent, were a fatiguing right facial droop, slight dysarthria that he put down to "just

feeling awful," and an intermittent right pronator drift. CT of the head was normal. Against the consultant's advice I ordered MRI with contrast and MR angiography, which showed multifocal restricted diffusion in watershed territories consistent with septic emboli and irregular middle cerebral arteries. Echocardiography showed a large mitral vegetation, and blood cultures grew Streptococcus gallolyticus.

Diagnosis and standard approach. Infective endocarditis with septic cerebral emboli, presenting as meningitis. Every individual result fit viral meningitis, and the guideline had been followed correctly. Discharge would probably have been followed by an embolic stroke or a ruptured mycotic aneurysm.

The patient's account. "You saved my life," he told me. "Everyone else was ready to send me home." [What did he understand of his illness while it was happening? How did he experience the move from "viral, go home" to endocarditis and then cancer?]

The family and the world around the illness. The first act of clinical judgment in this case was his wife's: she insisted on admission when discharge had been planned. [What did she see? What did the months of antibiotics and cancer surgery cost the family and his work as a coach?]

The encounter. I could not fully say why he alarmed me. The droop was subtle, the drift intermittent and the spinal fluid consistent with a virus. What I had was a gestalt: a visceral certainty that he was sicker than his numbers.

Where our readings differed. My account credits my intuition, but his wife's insistence came first, and without it there would have been no bedside for me to read. The consultant's reading was not careless either; it was the guideline's. [Did his wife ever describe what made her insist?]

Afterwards. He received six weeks of intravenous antibiotics. Cardiac surgery was deferred because of the cerebral emboli, and the vegetation resolved with medical treatment. Colonoscopy found a stage I colon adenocarcinoma, which was resected. At one year he was coaching again, neurologically intact and free of cancer.

Reflection. Here intuition demanded more medicine, not less. How should an education that examines intuition out of existence teach residents to recognize it?

This case is the guardrail of the whole model. It shows that scientific midrash is not a softening of science. Here the multilayered reading pointed toward more medicine, not less.

The network's story was "the test has answered; move on." Its actants were bed-management targets, the consultant's opinion and the guideline's authority. Together they were coherent and persuasive. They are also what medical education trains young physicians to perform.

Latour's account of reference shows why the intuition was not a departure from science. The cerebrospinal fluid result is one link in a chain that runs from the patient's body through the needle, the tube, the analyzer and the report. The network had cut the chain at the report and treated it as the end of reference. The physician went back down the chain to the bedside and found that the inscription

did not yet match the body it described: a fatiguing right facial droop, slight dysarthria and an intermittent pronator drift.

The intuition itself is best read through Latour's essay on the body (24). Decades of practice are an odour kit. A clinician who has learned to be affected registers differences a novice cannot perceive, and a protocol written for the average reader cannot hold. Polanyi (39) called this tacit knowledge, and Montgomery (40) showed that clinical judgment is a practical reasoning of this kind. In the language of my tradition, it is da'at: knowledge that is also intimacy (41, 42).

The re-reading was ein mikra yotze midei peshuto. The intuition did not overrule the lumbar puncture. It asked what else the plain data could mean in this patient, and it demanded more data, not less. That is the rule that keeps scientific midrash from becoming a licence to psychologize. On the shleimut ledger the efficient path would have cost the most: untreated Streptococcus gallolyticus endocarditis with neurological involvement carries a mortality above 50 percent, and the work-up it set in motion also found an early colon cancer.

A category mistake at the bedside: Rabbi A.G.

Rabbi A.G. (Chapter 6)

Presentation. Rabbi A.G. was 72, an Orthodox community leader who had taught Torah for fifty years. A glioblastoma had been found after new-onset seizures.

History. Resection and the Stupp protocol were followed by progression at six months. He was referred for worsening weakness, cognitive decline and seizures, but his family and community were in crisis over something else. He had stopped praying, could not bear to put on tefillin, and asked visitors reciting Psalms at his bedside to leave. At our second meeting he asked, "Where is HaShem? I have served Him my whole life. I have taught Torah for fifty years. And now, when I cry out, there is only silence."

Examination and testing. He had a left hemiparesis graded 3/5, a left homonymous field deficit, mild expressive dysphasia, frontal release signs and executive dysfunction, with orientation, memory and his gentle humor intact. MRI showed extensive progression with surrounding edema, and EEG showed diffuse slowing with left temporal sharp waves. He had weeks, perhaps a few months.

Diagnosis and standard approach. Progressive glioblastoma, with a spiritual crisis of perceived divine abandonment (hester panim). Standard care offered steroids, anticonvulsants, perhaps palliative radiation and hospice, with chaplaincy as an afterthought.

The patient's account. His question was his account: a life lived in conversation with God, now met by silence. [What did he himself think was happening between him and God? Did he speak of punishment, of his years of teaching, of fear of dying? Can a line from his writings of those weeks be quoted, with the family's permission?]

The family and the world around the illness. His community was at first distressed by his turn away from traditional practice, and later came to read his writings "as their own form of Torah." At the funeral his son told me, "You gave him back his God. Not the God he thought he knew, but a God he could meet in the darkness." [His wife and other family members; any disagreement within the com-

munity about what he was doing.]

The encounter. I offered no theodicy. I shared the teaching of the Piaseczner Rebbe, written in the Warsaw Ghetto, that the hiding of the face is itself a form of presence, and suggested that his inability to pray might itself be a prayer. He wept for the first time since his diagnosis. In the following weeks I came to him as chevruta. We studied the Zohar on the Shekhinah in exile and Rabbi Jonathan Eybeschütz on a divine "thoughtlessness" at the origin of creation, and I shared my own doubts along the way.

Where our readings differed. He did not return to conventional prayer, and I did not ask him to. The only direct family voice in the case is addressed to me; the community's own account remains to be told. [Did he resist any of the teachings? Did the community read his writings differently from the way he meant them?]

Afterwards. He began to write fragments, meditations and questions. Three weeks before his death he asked me to put tefillin on his weakened arm: "I don't know if anyone is listening. But I'm ready to speak again." He died surrounded by his community, his last words the Shema, and his family said his face relaxed in his final hours.

Reflection. "Where is HaShem?" was the question I was least equipped to answer. What does a clinician owe a question asked in a mode medicine has no form for?

The oncology pathway carries a strong script: another line of therapy, another scan. The palliative pathway carries its own: comfort and closure. Neither has a place for a rabbi's theological question. The standard response is a referral to chaplaincy. In Latour's vocabulary this is a category mistake. A statement in the religious mode [REL] was received by the organizational mode [ORG] and processed as a task to be routed elsewhere. By the felicity conditions of [ORG], the referral is a success. By those of [REL], it is a failure: the question has not been answered by the people at the bedside (43).

Latour's argument in Rejoicing is directly relevant. Religious speech, he wrote, is not a defective way of conveying information about distant beings. Like the words of lovers, it is judged by whether it transforms and makes present (21). "Where is HaShem?" was not a request for a theological proposition. It was an address, and it called for an answer in kind.

The re-reading was kivyakhol, "as if it were possible." The rabbis use the word to say what plain speech cannot. Sanhedrin 46a teaches that when a person suffers, the Shekhina says, "My head is heavy, my arm is heavy." God is not absent from the suffering but contracted within it, a reading that draws on the Lurianic doctrine of tzimtzum (44). I did not offer this as consolation. I offered it as a reading his own tradition had already made. The prognosis did not change. What changed was that care became company, and the physician's own question about divine absence entered the healing space rather than remaining a private burden. Shleimut became possible without cure: the wholeness of a life completed in its own language.

What the eight cases show together

In every case the decisive reading lay outside the layer that standard care was reading. In no case did reaching it require abandoning the science. The harm in these cases came from networks perform-

ing a plausible story, not from incompetence. Fourteen specialists, a hospice agency, a discharge protocol and an algorithm were each correct on their own terms.

The shleimut ledger cuts both ways. In seven cases the re-reading reduced testing, cost or intervention. In Case 4 it rightly increased them. This matters for the argument. Scientific midrash is not a preference for less medicine. It is a demand that medicine serve the person in front of it.

Discussion

Shleimut as the normative criterion ANT withholds

ANT's strength is description. Its familiar weakness is that it offers no ground from which to say that one network is better than another. Latour was aware of this. His turn from "matters of fact" to "matters of concern" (45) and his later "compositionist" programme (46) were attempts to move from deconstructing assemblies to composing better ones. But he did not say what "better" means, and in the clinic that silence is not affordable.

The cases suggest that shleimut can fill this gap. The word means wholeness, integrity and peace, and in rabbinic usage it is cognate with shalom and with shalem, complete. As a clinical criterion it asks whether an assembly of people, machines, documents and rooms leaves the patient more whole: in body, in means, in relationships, in trust and in meaning. It is not a measure of patient satisfaction or of cost. Case 4 shows that it can demand more intervention as well as less.

There is a bridge to Latour's own work here. In his essay on the body, he proposed that a good articulation is one that registers more differences (24). Shleimut extends this from the perceiver to the perceived. A network that registers the grief behind Mr J.M.'s pain, or the teenage night behind Mr T.R.'s file, is better articulated in Latour's sense. It is also more healing. The two criteria converge.

Multiplicity, not superposition

In Broken Vessel I describe the clinician's task as holding several readings "in superposition" and notes that a change in one is "entangled" with the others. The language is offered as metaphor, and it captures something real. But it invites a charge of borrowing prestige from physics, and reviewers in the medical humanities are likely to press it.

Mol's work provides a more exact and better-grounded vocabulary. Each layer of the five-layer reading (scientific, personal, religious, network, clinician) can be described as a distinct enactment of the patient's condition.

They do not have to be reduced to one before action; Mol shows that hospitals routinely act on conditions that are enacted differently in different departments. What clinical work requires is coordination among enactments, not a premature collapse into one. "Entanglement" is then what ANT calls association: elements are connected, so moving one moves the others.

I recommend that the clinical model adopt Mol's vocabulary as its technical language and keep the quantum images, if at all, as illustration. The rabbinic tradition supports this choice. Elu va-elu divrei Elokim chayyim (Eruvin 13b) is multiplicity held together with a decision about which reading governs action. That is coordination in Mol's sense.

Symmetry and responsibility

ANT's principle of symmetry, which describes humans and non-humans in the same terms, has drawn sustained criticism. Collins and Yearley (47) argued that it dissolves human responsibility into a network of things. A clinical application cannot accept that outcome. Someone is answerable for Mrs R.T.

The position taken here is that symmetry is a method of seeing, not a theory of accountability. It is needed to notice that a chart label, a payment model or a room is acting. Once those actants are visible, responsibility returns to the human who can reread them. In every case above, the turn came from a clinician who declined to perform the network's script. The model's fifth layer, the clinician's own history and wounds, exists to keep that human actor in view.

The clinician as diplomat among modes

Latour ended the Inquiry with the figure of the diplomat: someone who can negotiate among modes of existence without reducing one to another (20). Several cases call for this. Mrs R.T. needed reference to be restored over organization. Rabbi A.G. needed religion to be answered in its own mode, not routed through organization. Mr T.R. needed attachment and confession to be heard alongside the law's file.

The midrashic moves can be read as protocols for such crossings. Each is a recognized way of moving between the fixed text and its readings without breaking the text. Al tikrei restores a reading. Kivyakhol licenses religious speech where reference fails. Ein mikra yotze midei peshuto keeps every crossing answerable to the scientific peshat. Because the moves are named, they can be taught, observed and audited.

The risks of interpretation

The claim that re-reading carries fewer side effects than re-intervention needs qualification. Interpretation can harm. It can psychologize an organic disease, delay a necessary test or impose a meaning that the patient does not own. The history of medicine contains many such harms, and patients with functional disorders have often borne them.

The model contains two safeguards. The first is the peshat rule: the scientific text binds every reading, as Case 4 shows. The second is that the patient remains the final authority on what their own story means. A midrashic reading offered by the physician is a proposal, not a verdict. Mol's logic of care, which treats care as attuned and revisable tinkering, describes the right posture (26).

Implications for practice, education and research

For practice, the cases point to inexpensive changes in the network, not new technologies:

- **Re-read inherited labels.** Treat every diagnosis received from elsewhere as an inscription to be checked against the patient, especially at transitions such as hospice enrolment.
- **Ask the juxtaposition question.** "What else was happening in your life when this began?" belongs in every chronic-illness history.
- **Protect the aside.** Build unscripted minutes into visits for complex patients; the template is an actant and can be redesigned.
- **Attend to the room.** Privacy, light and a closed door are clinical variables.
- **Answer religious speech in its mode.** A referral to chaplaincy should accompany, not replace, the clinician's own response.

- **Hold the differential open.** Treat a test result as one link in a chain of reference that ends at the patient, not at the report.

For education, the cases suggest teaching residents to map the network around a case: who and what is acting, which inscriptions are travelling, which scripts are being performed. The midrashic moves can be taught as named reading practices alongside the differential diagnosis.

For research, the shleimut ledger could be developed into a structured instrument and tested prospectively in chronic-illness clinics. Ethnographic study of clinics that adopt these practices would allow the claims here to be checked by observers who are not the treating physician.

Limitations

Four limitations bound these claims. First, the cases are retrospective narratives by the treating physician, not ethnographic observations. ANT asks the analyst to follow the actors; here one actor tells the story, and the others, including the specialists, the agency staff and the patients, do not speak for themselves. Second, the cases were selected because the rereading succeeded. Cases in which a multilayered reading misled, or changed nothing, would test the model more severely and should be sought. Third, the shleimut ledger is qualitative and has not been validated. Fourth, the midrashic moves are drawn from one tradition. Their teachability to clinicians outside it is a hypothesis, though the underlying operations (relabelling, juxtaposition, attention to context and to silence) are not confined to any tradition.

Conclusion

Latour taught that facts are made by networks and kept true by chains of disciplined transformation. The eight cases here show the clinical underside of that insight. Networks can also keep a falsehood moving with perfect fidelity, and the people inside them can each be right while the patient is harmed.

Rabbinic tradition has practised for two millennia what ANT describes: a chain of reception that keeps faith with its text by reading it again under rule. Scientific midrash brings that practice to the clinical text. It does not compete with the science. It binds itself to the science's plain sense, reopens black boxes by going back to the patient, and judges among readings by whether they leave the person more whole.

The tradition that names God HaMakom, the Place, also teaches that the room, the chart and the referral letter are part of the text a healer reads. Latour, the former exegete, would have recognized the method. What the rabbis add is the measure. A network is not judged only by how well it holds together, but by whether the person at its centre is healed within it.

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