

Porous emerald

The taxi

Jago stirs: something is strange. Ice-cold wind streams from the aircon and relentless chatter from the radio: "...it would not be without reason to deem it a ghost or a phantom formed by the brain..."¹ Reality blurs: yes, he must have drifted off. Yes, the taxi, but no, why have we stopped? What time is it? He breathes in heavily through the nose. Fog lifting: yes. The guest lecture at the Uni, voices of those students still lashing the insides his skull. Jago searches a foothold for memory. Faint whiff of tiare, plumeria: airport posters with not-so-secret voluptuous bodies. Why is he alone? Or, not exactly alone.

"Got jam, yessir, very heavy traffic, always at this time *leh*." Thick accent, yet the voice is soothing.

A silent second, then the radio continues. "And not in any way doubt the veridicity of such things, if after having called on senses, memory, understanding..."

A plate above the front passenger seat: Mr Toh Ma Khun. Early 60s, thick spectacles, high forehead, thick lips. Someone's uncle.

"I'm really late. How long did I sleep?"

"No worries. Got another way soon, just opened. New, sir, you want to try?"

Cold wind, radio chatter, condensation building. Jago needs air, some fresh hot air. Grins and rolls down the window: a change of perspective. In a moderate temperature with no wind, the mind regards the air as a mere nothing.² He gulps the fresh hot air.

The canopy is a porous emerald. Strange animal shapes, calls echoing from trunk to trunk. For an eternal moment, Jago's consciousness is blank, yet alert: overwhelmed by multiple sensory streams.

Roll up window, fade in radio chatter: "...exigencies of action often oblige us to make up our minds before having leisure to examine matters carefully..." while Jago becomes aware of the response cooked up by a precognitive part of his brain.

"Okay, try the other route." Glances at the watch, at the taxi meter. No Mr Uber: yes Uncle Khun. "Will we make it in time? Do you know how... how long?"

¹ Descartes 1647, ending

² Descartes 1644, 1:71

Cast

Jago: as himself;

Uncle Khun / Toh Ma Khun:
Thomas Kuhn;

DC / Emeritus Demócritos
Tonkartón: René Descartes;

Dave / Associate David Scott:
David Hume;

Emma / Assistant Emma Brink:
Immanuel Kant;

Zach / Professor Zachariah
Triturus: Isaac Newton;

Sandy / Xia Su Pei: Charles
Sanders Peirce;

Han Zi: Hans Reichenbach;

Poppy: Karl Popper;

Baasa: Baas van Fraassen;

Arul: Larry Laudan;

and last, but not least, the
Ludwigs: Wittgenstein and van
Beethoven.

A Duchenne smile, driver seems elated. “No *lah*, never drive it. New construction, so how, holy cow? Hehe. No worries, now the first bit bumpy for sure, soon others will come around, smooth sailing. For a while. Then people might find things strange. *Liddat lor*, new questions always on repeat. Never same puzzle, always same pattern. No way to compare different road one *lah*.”³

³ Kuhn 1962/1970

Jago’s mind is blank. What about the first drop-off? How could he have missed it! A sense of sweet and sour disappointment. That’s life. “So let’s go.”

Who is to blame for what happened next? A mesh of events, strange as each may seem in isolation, is created mail by mail. Khun, euphoric, switches off the radio, throws in a low gear, accelerates with a daring turn onto a side road. Jago bounces at every pothole; he tries to ignore the patchy tarmac and keep his lunch down.

“Me, I’m a driver. My taxi got all I need to know. Finding the best way from pickup point to drop-off point. Once set off, driving is like solving a puzzle. That’s all what. Question why there is this puzzle, why these rules? Nooo need! Let me tell you: each ride got its own reason *lah*, got its own reality, got its own logic.”

Each journey becomes exemplary. The driver’s hand: a flicker of two contrasting shades. His own: palm and back in a completely uniform colour. Palm less hirsute, thankfully.

Sudden large bump: “Ouch..! My whole journey here is an experiment, really. The Uni invited me – where you picked me up – for a guest lecture. You know, they have a very renowned department, research in embodied sensation. That’s why I came to this place.”

Jago had sensed puzzlement among the professors – some misunderstanding? The impressively articulate Emma, the older colleague, what’s his name? And professor Triturus, who studied with the master himself. The big Uni’s motto, like a compass: ‘Eastern Wisdom, Northern Technique, Western Finance, Southern Vision.’ Grand, all capitals.

Taxi slows down for a roundabout: how come there’s no traffic here? Jago sees a bird lift from a branch: flash of blue. Emerging from the canopy: *angsana*, or maybe *tembusu*.

“The students posed good questions. Yeah, not easy to answer at all! Scrutinised the grounds for what I lectured upon, it really provoked in me a sense of –” Jago interrupted by another pothole. Sense of crisis: yes, no? He hesitates, the word is too strong. Vivication? Road getting more uncomfortable.

“In this world, nothing is easy. I share this taxi with my nephew Arul. He tells me *orredi* taking a customer from point A to point B got three kinds of problem. One. I can see the way, but the road is not built yet. So how? Cannot drive *lor*, must go round, or build first, right? Hehe. Two. I hear got another road, many cars, like everybody go again and again. But I can’t find it. So I don’t waste time any more. There is a third one. Know where it is, no traffic. But damn *suay*, you know means ‘bad luck’, my car *lao ya*, engine too weak! Then better off walking, taxi cannot help.”⁴

⁴ Laudan 1981, p 17

Jago’s stomach is like a laundromat. “So which kind of road are we travelling on now?”

“This one? Never tried before. Very bumpy right!” Uncle Khun speaks slower, speeds up the car. Another large bump, ka-boom! Hit something big, something indubitable.⁵ Jago in the backseat bouncing like a ball in Newton’s cradle.

⁵ Descartes 1647; see also Kuhn 1962/1970

“So sorry, can *dahan*? Maybe you try ignore. I drive many years, got used to bumps. Let me tell you. Push on a bit, can learn from it, den you strike it big one day.”

Left hand gesticulating; for each syllable: drawing a short line in the air. Rhetoric graffiti, starts humming. Jago wants him to hold the wheel with two hands. Drivers deal every day with anomalies and recalcitrant evidence. The tune is vaguely comforting to Jago. Yes: a ’60s hit. Can’t recall the words. Yes, now he can: love, of course: *Love me do*. Hums along, soundlessly: he prefers the later albums.

Earlier at the lecture, what Jago had claimed: “We are limited to an incomplete understanding of the world, even if it is simple at the core. In order for us to understand it, the world must be a certain way.” The Uni as in a dream: he imagined moving, rousing; but action: impossible. The body a prison: or maybe he was nervous? “When imagination is indistinguishable from memory, when we’re at the vertex of an unfolding strangeness, action becomes necessary. Writing music demands musical thinking.”

Grad student audience really active, he liked them, the way they asked questions. Yeah... Big brown eyes, is she a bit cross-eyed? “Doctor, thank you so much for the talk... I’m Su Pei, call me Sandy. Hrm... you said in your talk...” She flips the pages of his printout. Then her notebook, emerald green, with an elastic strap across. Take your time. A conceptual rhyme between her T-shirt slogan and his talk’s subtitle: knowledge is power, strangeness unfolds. Rhyme? Why does he think it rhymes?

“Sorry! ...eh you compared belief to music, and I quote: ‘Belief is a half-cadence in the symphony of our intellectual life.’ Very pretty, haha. But is it revealing? I’ve three questions. Firstly: do you mean that music can make us aware of the limitations of our knowledge? Secondly, can any analogy, no matter how pretty, really appease the irritation of doubt? Thirdly, aren’t we better off focussing on action, rather than getting stuck at belief?”⁶

⁶ Peirce 1878, part II

Go-getter. Music the context of discovery, musicology the context of justification. Between seeking and describing, what’s the link? Connecting observation and theory is explanation, the ‘is’ is the link. So big eyes, notebook again. Jago excited, no time building an argument: time running out. Most of the wonderful complexity and exciting controversy skipped over, his response is “like a stone thrown to bounce a couple of times on the water’s skin.” Is he badly prepared? Snap out of it old boy; this is home turf. Go for your intellectual quest, let’em spin! “I dream about finding sufficient grounds by which to distinguish dream from wake. But when I awake I can’t find any.”

And yes, they rewarded him: approving giggles, right on cue. Fruit machine optimal play.

Jago’s unseeing eyes turn away from the multi-coloured flowers of the canopy; they meet Uncle Khun’s big brown eyes in the mirror.

“Mister, you ask why every stone must sink. Ah-hah, but how do you learn every stone can sure sink one? Seeing one, den next, den next, go on and on. Can, but still is never enough, you cannot know. Unless seeing patterns.” Left hand makes a large circle in the air.

Beyond simple enumeration: identifying through observation some characteristics that could take the form of general laws.⁷ Another student, round face; whole appearance rotund. Tricky comments, tight-lipped, thin voice like a straight line.

⁷ Russell 1961, p 526-30

“Every event is preceded by a cause which partly determines it, but the event is also partly determined by a universal law. To deduce the occurrence of a phenomenon from a general law is to attribute a cause to it. To explain a phenomenon is to say what caused it. My supervisor, prof Emma, says this principle is ‘transcendental’ since causality is itself unobservable. The universal is a point of departure, necessary for the very possibility of the event, of our empirical observation of it, and thus our knowledge.”⁸

⁸ Glymour & Eberhardt 2014

In response, Jago relaxes the larynx, increases sub-glottal pressure. His vocal centroid sinks: alpha male signal. “The classic top-down: formalised guesswork, mind over matter. The method: make a bold general statement; then: laborious particular observations; finally: hold, nudge, and verify. Like clockwork, *finito, basta*. For sure, it’s a mistake to treat the Greeks with superstitious reverence.”⁹ Aiming for big streak, but darn. No prize this time.

⁹ Russell 1961, p 57-58

“No sir, my approach is more like boot-strapping, bottom-up. The ascension from sense data to individual things to scientific theories. Sandy and I are working on probability and action. Togethurr.

But Poppy very *hiao*, she will go down her own path.”

“*Diam lah*, Han Zi... I’m not a loner meh.”

“*Wah piang* you are, what! But at least you don’t throw bricks around!” Sandy slaps him on the chubby wrist. The students laugh: bickering, not feuding. They all agree on the fundamentals.

The committee

Jago standing outside the office of the department head, looking at the plaque: ‘Zachariah Triturus, MA. Professor of Embodied Philosophy.’ “Take a seat please.” Thank you. Jago familiar with the early work on anemometry, the tales of fighting, fruit farming, alchemy. Innumerable granted projects, publications, patents, secret societies, royal connections. Triturus’ rise from humble beginnings to the highest echelons of the Uni had been uniform: a straight line. Unkind voices whispered of unprincipled borrowings from a teacher but no one seriously questioned his eminence. In fact, the professor’s position at the Uni was so solid, that, seemingly, all that remained for younger colleagues to do, was fill in the details.

Inside the office, Professor Zach, as he likes to be called, has gathered the search committee for the new faculty position: associate David Scott,

area coordinator of the college of materialistic sciences, and assistant Emma Brink, specialist in transcendental communication. With the fourth member, flamboyant emeritus Demócritos Tonkartón away on outreach – some radio talk show – the others breathe calmly. But the professor is perturbed.

“I’m puzzled by the candidate. Could he have – misunderstood – my invitation letter? He seems too relaxed! Does he not know that the lecture – with the students – is evaluated according to a most strict protocol – implementing mathematical formulae – as part of the hiring procedures?”

“Zach, you’re the one with the experience to tell.”

“Yes. Yes, I should have – thought – so. The word ‘thought’ – as you know – covers everything that we are aware of as happening within us, and it counts as ‘thought’ because we – are – aware of – it.¹⁰ But in this case ‘instinct’ might be called for, and much as I know it will dismay you – Dave, in particular – and Emma – my dear – perhaps you will be prepared to go along with – gut feel?”

¹⁰ Descartes 1644, part 1:9

Dave crossing his legs, Emma straightening up, saying: “Certainly. I always consider my very first judgment, even if it is merely a product of perception: nonetheless it stays with me; but with me alone. At some later point, a more consequential form of judgement might be created by attributing perception to an object with the assumption that the judgement will extend its validity to the public realm: to all times and for everyone else.”

“Excellent. Excellent, as you say, our experienced judgement – determines – the world.¹¹ The fewest assumptions – or greatest simplicity – is preferable. We need no more causes of natural things than such as are both true and sufficient to explain their appearances.”¹²

¹¹ Kant 1783, part 2:18

¹² Newton 1687, regula 1

Dave, eager to move on. “Axiomatic. I heard a knocking mand. Shall we let him in?”

The forest

Two Uni colleagues longing to leave the search committee meeting: Dave’s mood clouded, Emma legs sleeping. To vivificate, they head for the lowland equatorial evergreen rainforest.

“Good of you to interrupt my dogmatic slumber and suggest a walking meeting. We can talk plenty about the search matters. Oh, I love this trail, I find the uniformity of the canopy – its colours and shapes – so... comforting, really. Did you know I walk here every day at exactly the same hour? We could reach the tower before sunset, if we choose to go that deep in. Dave, what say you? Some fresh hot air might have a positive effect on us.” The last sentence intended to taunt her elder colleague: successful.

“Emma, I don’t believe for a moment it could do us any good. Not anything bad either. We’re just as fine without trying to establish what air, fresh or hot, might do to us. Your idea of fundamental ideas is getting to your head again.”

She produces a sound like a bad cough, but Dave knows it's laughter. They have had this exchange many times, with the smallest of variations, ever since becoming colleagues. He knows Emma's obsession with schedules; she knows his thirst for fame.¹³

¹³ Murr 2014; Gottlieb 2016

"I just thought of the two Ludwigs in the lab: the one can't stop talking at our walking meetings, while the other, refusing all company, takes silent walks in the rain." Coughing-laughter again.

She's funny: his clouds are lifting. "Emma, you aren't half as sick as you are trying to make it sound. Granted, your humour is drier than your throat." He snickers. "Now-now, having heard the guest lecture with the students, how would you judge our candidate?"

"Well... at least he's a good listener."

"Lame... and you're avoiding the key question: is he fit or not? At job interviews, we put them through tasks: theoretical, empirical, practical. We observe them and figure out if their performance correlates with their CV: observation and theory. Ah, we look into crystal bowls, fish guts, or worse, seeking to establish their future suitability." Dave shakes his head. "We've done this many times before and it seems a natural process to gain knowledge; yet there's something in me that objects to generalisation."

"Professor Zach requested a prediction: will the candidate be as good an employee as he was a performer at that single lecture? Dave, you know him better than I do, how could he ask us that? Knowing full well that particular observation is disjunct from universal truth, and quality is hostage to quantity. Yet Uni mands an apodictic judgement: yes or no."

Dave halts, Emma continues at a slower pace. He could not in her voice, decipher any trace of passion, and now he cannot see her face. Words so clear themselves do not suffice for meaning.

"Our judgement must be tempered by our previous experience; reasoning is based on analogy, and analogy is what leads us to expect from any cause the same events, which we have observed to result from similar causes."

Her back towards him still. "True. Yet analogies can be more or less perfect, leading to inferences whose conclusiveness is proportional to their degree of similarity and resemblance."

"Well, that's my point."

He meanders down the slope towards her. The path: covered with dense vegetation. An emerald tunnel. Dave intones: "The under-canopy forms a false ceiling. The path we follow reaches uniformly into dimmed distance; should we stand firm, the path is time, and thence continues uniformly into dulled future. While this is what my senses show me, it does not mean that I must hold eternal sameness true."¹⁴

¹⁴ Hume 1748, part 9

Emma turns, revealing empathy. "You're such a grumpy sceptic! What if we distinguished judgements of perception of the lecture from judgement of experience of candidates in general? The latter have objective validity because they are reflected upon and shared. The former obviously have mere subjective validity; yet both are powerful, since either justifies action."¹⁵

¹⁵ Kant 1783, sect 2:18

"I'm not a sceptic: on the contrary I take comfort in there being absolutely no effect whatsoever of my action. Whether I tick the box to support – tic – or not – tac – or the last option, where it says that I cannot evaluate the quality of the candidate solely on the basis of presented evidence – toe – I will not in any way influence the final outcome."

"Prof Zach would not agree. He counts each vote, then calculates the average. He was first to do it that way, you know. And absolutely all Uni followed. Even the students. But they're not blank slates, written upon. Rather, it is their own minds that create reason, and it is reason that gives ground for judgement. Empirical judgments are always self-made."¹⁶

¹⁶ Kant 1783, preamble to sect 2

"Emma my dear: it's impossible to explain, or even to experience, causal relations; such experiences are merely figments of our imagination. My teacher recommended common knowledge: that is truth which clear is and distinct for all to see. *Id est*: public."

"Well, this afternoon, your own student demonstrated – in public, yes – a clean-cut separation of observation and theory. Not bad, actually. She defines our actions according to context: it's either justification or discovery."

"Poppy, my poppet... Yes, she is very committed to matters of objectivity and empiricism. Different contexts? I like it... a dichotomy that explicitates! Better than splitting the world into cause and effect, innit?"

Dave hops happily along, humming turning into singing. "No–no–no such thing in nah–nah–nature. Co–co–causation, ain't much like self or substance, no–no–no." Pieces of gravel bounce rhythmically on the path, into the grass. Emma shakes her head, Dave is decidedly on a phlogiston free-flow. "Looook at this tree, this forest. Hear the animals call, echo–echo, from trunk to trunk... Experience! Even the most ignorant, brute beasts can improve by experience, and learn the qualities of natural objects, by observing the effects which result from them."¹⁷

¹⁷ Hume 1748, part 4b

Dave out of sight, ululating in the forest. "I see the uniform blue–brown–mauve–red, I hear the uniform bleat–chirp–hoot–click... co–co–constantly co–co–conjoined. My mind is determined by custom to infer the ooh–one from the appearance of the ooh–other. Circumstances form the whah–whole of that necessity. Beyond the co–co–constant co–co–conjunction of similar objects, and the co–co–consequent inference from one to the other, we have no–no–no, nah–nah–nah, no–no–notion of any–nanny ne–necessity or connexy–sexy co–connection whatsoeverimostedly..."¹⁸

¹⁸ Hume 1748, part 8a

Dave's phone signals short message service: slows down and trawls his pockets. Realises he's standing in front of an enormous tree, like a giant's arm with 30 fingers stuck into the soil. An emergent tree: *angsana* or *tembusu*? Light sprinkles past its wisest branches, plays upon its physical trunk, and reaches finally its fundament, the twisted roots above the forest floor.

Emma, catching up. "Nice jingle, you feral man-child. Who's the message from?"

"You-know-whom. Apparently just finished that radio interview and now desperate to share some leftover remarks with us." He probably posts to a huge group of recalcitrant receivers.

“Such as you. I don’t even have a handphone. May I read it?”

“Sure...”

“Well, he writes: ‘I am seeing, therefore I exist. I am walking, therefore I exist.’ Good old DC, same old refrain. Not quite there yet, is he. Should know that if those words connote bodily activities, then neither inference is secure, because he might be dreaming; he might not even have a body at all! Might be just like a radio voice. However, if the same words were labels for the actual sense of seeing, and the actual awareness of walking, then both inferences would be perfectly secure, because they don’t go beyond the mind, which senses or thinks that it is seeing or walking.”¹⁹

19 Descartes 1644, 1:9

Dave is transfixed by a kingfisher: a piece of food in its long beak, a fruit or a shell, perhaps a snail. It juggles the bait, bites it repeatedly. Suddenly throwing it to the back of the throat; then vigorously shaking the head. When calm: looks around, proudly sated.

Emma, reconciliatory. “You speak of brute beasts in a forest, but I think of life therein much like of knowledge itself – all parts belonging: growing together. The forest is architectonic: an artwork disguised as a system of many various cognitions bound in one. Not an aggregate of unconnected thoughts, because knowledge grows organically from within, like the limbs of an animal body, and not by external additions.”²⁰

20 Kant 1781, ch 3

“If the forest is our human reason, our mind, then the animals are our thoughts. Is this the core of your analogy?”

“I say that human reason is by its nature architectonic... the interest of reason, which requires a unity – not empirical, but initial and self-made – forms a natural recommendation for believing in reality.”²¹

21 Kant 1781, SS 6. sect. III

“Ah, I recognise the core of your argument... but the world is constituted by empirical objects and entities of which we can share subjective judgements, and unify knowledge of a public realm of empirical objects.”

“Yet the source of necessity for these shared objects originates in the mind of the knowing subject, not in objects themselves: existence springs from the mind.²² And I recall it was your student who said – Baasa, the exchange student I mean, not Han Zi – that it exactly is in this sense that objective knowledge is possible: even science. So far so good. But then he questioned your cherished notion of analogy...”

22 Kant 1781, ch 7:7

“Yes, I was taken aback. He actually said, at the queue-and-aye, that our mental representation of the world does not necessarily resemble the world. Claimed that representation is a social convention, something that depends on usage. Unheard of! That there is no such thing as representation except in the sense that ‘some things are used, made, or taken, to represent some things as thus or so.’ I was totally shocked. Were you not stirred, at the very least?”

“Not really. Totality is nothing else but plurality contemplated as unity; limitation is merely reality conjoined with negation; community is the causality of a substance, reciprocally determining, and determined by other substances; and finally, necessity is nothing but existence, which is given through the possibility itself.”²³

23 *ibid.*

“I think he is bashful; youth is leading him astray. A gulf separates us!”

“Ah Dave, you’re painting yourself into a corner, your empiricism is limiting you! Bridge the gulf by negating negation. So what if you cannot sense the totality of the world and thus cannot know the totality of the world! Reason is the human ability of making inferences about the true existence of the world, escaping inductive regression.”

Her arms extended, wrists twisted, fingers strained at unusual angles. “Reason begins by persuading itself of the existence of some necessary being... of... of...”

“... unconditioned existence?” Dave plays along, he knows she thrives on antimony.

“Yes, the unlimited all is an absolute unity, and is conceived by the mind as a being... being...”

“...above?”

Release: a new pose. “Exactly, and thus reason concludes that the peerless, as the primal basis of all things, possesses an existence which is absolutely necessary.”²⁴

24 Kant 1781, ch 3:2

“Here we go again: the leap of faith. I’m not buying into it, Emma. Your reliance on intuition borders on mysticism, and it includes an unprovable proposition.”

“No it doesn’t! At least try to see my point, and without invoking the negation of evil!”

“I’ll be delighted to.” Bow and scrape: a balance act between humour and haughtiness: “Let’s imagine that your ‘self-made first step’ is a stepping stone. Might it be reinterpreted, later, in a rationalist framework of explanation?”

“Aww Dave, my idea eludes you...” Her arms drop.

“Emma, I’m not criticising you; in fact, it’s rather the other way around! I’m in no position to claim knowing exactly why good and evil appear so unjustly distributed. I can’t. Then you were the one rejecting my conviction that knowledge of the world exists prior to humans sensing it – pure knowledge!”

“Okay, okay, okay... I accept that causality cannot be proven by experience. But I can show that experience is impossible without the existence of previous knowledge in the world. If this stepping stone, as you call it, is a piece of knowledge, then it’s a minimal –but necessary! – requirement for knowledge. It springs out from how the mind is organised and how representations are constituted.²⁵ I know this beguiling proposition is close to being circular and that I might never be able to prove in itself but only in reference to things as objects of possible experience.²⁶ The problem of reason is so real... it’s despairing. Yet I hope that one day you can see that objective experience is only possible of particular events, and that our knowledge of the causal relations among events are simultaneously constructed. They are one and all parts of a unified and uniform experience of nature in space and time.”²⁷

25 Kant 1781, ch 3

26 Kant 1783, part 3, 1:47

27 Pierris & Friedman 2013

They walk in silence, Emma's exasperation receding with each step. Unusual bird calls, Dave fantasises they might mean something. Dave's handphone receiving.

"Beep, beep, black sleep... gotta be DC again. What's up this time?"

"Let me see... Ah, you'll like this one, he writes that each moving thing, if left to itself, moves in a straight line. The reason is the unchangingness and simplicity of the operation by which God preserves motion in matter, et cetera, et cetera..."²⁸

28 Descartes 1644, 2:39

"The fearless peerless."

"Wait wait, it continues... the same amount of motion and rest in the material universe as he put there in the beginning."

"Aww again, what's this now about 'amount of motion'? We understand amounts of cheese or of water or of any other kind of substance... but he's the one who insisted that motion is not a substance but merely a mode of a substance, a way of being that the substance has. Am I not right?"²⁹

29 Descartes 1644, 2:36

The tower

From a distance, the tower appears round.³⁰ As they approach, they realise that it is in fact square. Through her binoculars, Emma is obsessively counting the levels, the number of steps to reach the top. From the Parnassum, the unbroken horizon will be theirs to behold, and the world no longer a cave or a tunnel, but an emerald disc: flat as a stone skipping across water.

30 Blending the ideas of 'ivory tower' and 'tree of knowledge' (Descartes 1644).

"Let's climb it, shall we? See – there are five levels." Meanwhile, Dave inspects the forest floor with a magnifying lens. There is a garden with ceramic sculptures. On a brownish, deep purple blob crawls a snail: the Maserati of snails, 10 centimetres per minute. Slender, its muscular body stretching ahead and behind the low, tiny, barrel-shaped shell. Leaves a patchy trail in the same brownish, deep purple as the ceramic surface of the ceramic blob.

Emma leads on. "It's plain to see the first level is easily accessible – Dave, you're standing on it! – No thinking required there. But we will only get to the second floor through careful observation, using all the senses, avoiding being pricked by the shrub. And the floor after that, interestingly, necessitates the attention of both of us – hellooo, Dave! – and to take turns, in a dialogic fashion, so as to constitute the steps we climb on – good thing I brought you along then!"

Dave grumbles, yet he cannot not be smitten by her enthusiasm. A new balance act, between tempering and encouraging. "So far you are absolutely right, my dear. But to reach the levels constructed further up, no talk is called for: only a map, and our careful reading of its good instructions. That's the canopy, and frankly speaking, beyond that, few emerge."

"I've got the map! See, apparently the Learning Path runs in the opposite direction to the Ontological Path. The tower is right in the middle. Which one do you think we should follow?"

“Emma, we’ve been here many times, and every time we’ve found the tower. The map hasn’t changed at all, and the start of every track looks the same. Yet it is not safe to assume we will get to our destination today.”

“Despite this uncertainty, we have to decide. We are compelled to go where the track leads us.”

“But to trust the map? Unacceptable!”

“Shh! Keep your voice down, I heard something.”

“A shadow? The madman!?”

“Calm now. This map, and our memories of previous walks, make it probable, at the very least, that we will reach the top of the tower – daylight lingers longer on upper levels, while lower ones are mersed in darkness. I’ll let you go first. Age before beauty!”

What is to blame for what happened next? A mesh of events, strange as each may seem in isolation, is created mail by mail. Dave suddenly loses his sense of footing; misses a step; puts the left foot into empty space. The term ‘empty’ in its ordinary use does not refer to a place or space in which there is absolutely nothing at all, but simply to a place in which there are none of the things we think ought to be there.³¹ The net force on his body parts is no longer zero. To regain mechanical equilibrium, he reflexively twists the torso to the right and extends the left leg to stop a free-fall. Already before his foot hits the ground he knows the effect will be like the lash of a whip, cracking ligaments and tendons.

31 Descartes 1644, 2:17

He cries out and breathes heavily; soon he will be lying across the steps of the stairs of the tower, his head on Emma’s thigh. “I hurt my foot. The pain has barely started to crawl in, but already it scares me: slowly it gnaws at first, then takes larger bites, each time growing longer fangs and daring deeper digs. The clear awareness that pain comes to me quite unexpectedly implies that one particular body is more closely conjoined with my mind than any other body.”³²

32 Descartes 1644, 2:2

“It is dark, you didn’t see the root above the ground from that tree, your foot was in action and hit the root, which was at rest. Your foot contains fluids, the corpuscles are displaced in unknown relationship, without meaning. It is painful, your brain projects the pain back onto the limb. The sensation of pain is existing not purely in your mind but also in the foot.”

“Is it the same tree as before? The same root? An unfortunate asymmetry: the root at rest, my foot in motion: impact, yet the root appears free of damage. How could I blame the root for my pain?” Gulps for air, contorts his face, moans. “There is an asymmetry in representation that resemblance does not have, so resemblance is not the right criterion for representation.”³³

33 Fraassen 2008a p 9, p 15

“Rest now, Dave. I am not talking here about the action that is understood to exist in the body that starts or stops the motion, but simply about the transfer of a body, and with the absence of a transfer, that is, rest. This transfer can’t exist outside the moving body; and when there’s a transfer of motion, the body is in a different state from when there is no transfer, that is, when it is at rest.”

“All that talk about rules of hard bodies hitting each other, going off in various directions. For me, all the while fluids are rushing to my ankle so that the whole foot will soon be spherical, but soft, hot, pained. Our hands are very soft, more like water than like nails...”

“You must rest! Motion and rest are just two modes of a body.”³⁴

34 Descartes 1644, 2:27

“Now, if one body x collides with a hard body y that it cannot push aside, y 's resistance provides an obvious reason why x 's motion will not continue in the same direction that it had before the collision.”³⁵

35 Descartes 1644, 2:41

“Please Dave, be silent.”

It gets late, so the sun sets and night rises. Dave gets another short message service. “Read it to me, Emma.”

“Here we go... oh, it's a long one, you don't want to hear it all... rambling about his childhood, how bad it was. Like this: ‘The prejudices of childhood are the chief causes of error. I can't forget them.’ Gee, I wonder, DC... are you onto something or are you on something?”

“Poor DC, alone in a bar, riding out a storm of emotions. Did you know that he was the supervisor of Zach's eff-why-pee, his first year project?”

“No kidding!”

“Before he joined the bright side. Hhhh...!” Coughing-laughter echoes through the forest, from trunk to trunk.

Eventually, batteries run out; they speak less. Emma reflects on action, Dave on simultaneity. They marvel at the Uni and at the stars, which, like stellar professor Zach, they fundamentally agree, exist. Their marvels, being sensations, are likely also to exist, though neither can be certain, as they have not yet formed a public experience. Neither thinks of the candidate.

Because the light coming from the stars appears no brighter than the meagre glow produced by the liquid crystal display of Dave's handphone, they do not imagine any star as being any bigger than this. Because they do not observe that the earth turns on its axis, or that its surface is curved to form a globe, they are apt to suppose that the earth is immobile and its surface flat. Right from infancy Dave and Emma had been swamped with a thousand such prejudices; and in later childhood, forgetting how little basis there had been for adopting them, they came to regard them as known by the senses, or implanted by nature, and accepted them as utterly true and utterly obvious.³⁶

36 Descartes 1644, 1:71

“Because my foot was awkwardly placed, the pain is felt as in the foot, and meaning is naturally deceived; because the same movement in the brain couldn't cause in the mind the same feeling, and this feeling more often roused by a cause that hurts the foot, than by an external other. It is more reasonable that it brings to the mind the pain of the foot than that of any other part.”³⁷

37 Descartes 1641

“Shhh... Everything of which we have sensory awareness is subject to this same kind of mistake: be it titillations or pain. We don't suppose that pleasure and agony exist outside us, but we do think of them as existing not purely in our mind.”³⁸

38 Descartes 1644, 1:67

The cab

It gets late. Because the earth turns, the Uni – buildings, trees, roads, and all – conceals the straight line drawn between Zachariah Triturus and the Sun. Seeing light as though it were in the Sun makes other people think that the light exists outside them, but for the department head of embodied philosophy this belief is a mere carry-over from early childhood.³⁹ Not being able to enjoy daylight for another several hours, he decides to call it a day. A cab will bring him from work to home: a little luxury he at certain times affords himself. Besides, there is no reason to expect any complications at this particular occasion.

39 *ibid.*

Stepping out of the Uni building that houses his offices, having texted for a taxi cab, prof Zach munches on a persimmon, a fairly common fruit at these longitudes and a taste he much prefers to apples these days. Good, here's the cab. Diodes emitting red light in dotted patterns: on call.

He squeezes into the back seat. "Carlton House Terrace – please... ouch!" Could use a reupholstery. Cab smells of cheap perfume; thankfully, the air is extremely cold.

Professor Zach can explain – that is, justify the splashing out of department expenses on this taxi cab ride – as a result of either of two causes, or their combination. One: he is pushed from the tedium of his office; thanks to professional efficiency, today's tasks have been successfully completed. Two: he is pulled towards the tranquillity of his home; for Zach, finality is the very definition of home, a place demanding minimal amounts of judgements to make and of actions to take.⁴⁰

40 Efficient, final, and other causes, defined by Aristoteles

"Howdy sir, put on your sitting britches, because we never travel the same taxi twice."

"I beg your pardon?" The strangest of dialects. In the mirror: bobbing bushy eyebrows framed by spaniel earlobes.

"Change is in the air, Arul takes the night shift. My uncle needed time off. He's so busy you might think he was twins."

"I see."

"Route must change if driver gets stuck in a blind alley."⁴¹ Happened today but my uncle got out of it, smart as a whip he is. Sir, how about some entertainment?"

41 Russell 1961 p 85

The absence of an answer implies consent: Arul turns the radio on. Zach is not much for listening. He scans the streetlights, hurled towards him in the darkness of a cab dashing downtown. Radio spouts a jingle, or a commercial, or something equally vulgar. Simply awful. The voice is processed to sound more threatening, more seductive. "Nature teaches you pain, hunger, thirst. You are lodged in your body, as a pilot in his ship. You are so mixed up with it that you feel as one with it." Unnatural gobby irritates Zach; yet he cannot not hear it.

Professor Zachariah blocks out the moronic chatter and focuses. The candidate. The faculty position. The decision which is his to make. Well, after due consultation with Dave and Emma, of course, but he is the one who makes the first and final calls. The emeritus need only sign the

documents. No room for complexity. Nature is simple and superfluous things do not thrive therein.⁴²

42 Newton 1687, regula 1

Blather forcing itself into Zach's mind: "But you are a thing that thinks! All your feelings of hunger, thirst, pain are nothing but confused modes of thinking, which come from and depend on the mixture of mind and body. Voluptas has the cure. Get your mix now, let Voluptas fix it for you. Dial one eight hundred five five..."⁴³

43 Descartes 1641, ending

Zach squirming visibly: Arul turns off the radio. Mercy killed the goby. Zach relaxes: saved by the grace. Gratias. I am full of grate. The ensuing silence soothes them both, and wraps them in a quilt of quiescence.

Zach meditates on justified true belief: whether it counts as knowledge or not. He feels compelled to come to a decision for the case at hand, even though no adequate theoretical or empirical grounds for any decision exist, for even to do nothing is still a decision.⁴⁴ A mild titillation as he ponders the possibility of making a correct decision for the wrong reasons. A person's belief of what will happen can coincidentally be correct without him having the actual knowledge to base it on. Then, unexpectedly: a flash of green in the darkness, near his left foot.

44 Russell 1961, p 769

Who, or what, is to blame for what happened next? A mesh of events, strange as each may seem in isolation, is created mail by mail. It is clear that Zach could not have seen the notebook, had Jago not dropped it. The relationship is logically true, in all likelihood. But as it is non-commutative it doesn't explain everything, far from it, so pointing it out might unfortunately not much help you, dear reader, get to the bottom of this story.

The notebook is lying on the floor. Emerald green, with an elastic band across. Puzzled, Zach flips the pages, which are full of annotations, sketches, diagrams, and hand-drawn maps. And then, in a fold towards the end but not the last, embracing a small pencil: a name, in large capitals. He breathes in heavily through the nose. There's plenty more to read on the page, but to be able to do so, he needs better light.

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