The World of the Workers

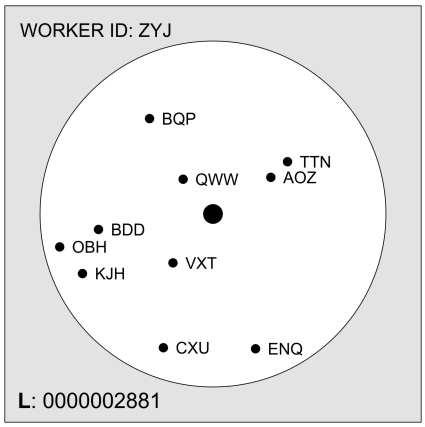
Giles Hayter

Jan 2020

1 The Game

Imagine a networked video game, whose rules are as follows. Each player, using simple motion controls - Forward, Back, Left, Right - controls an entity known as a Worker, which is free to move in a featureless, two-dimensional space called The World. The nature of these entities is unknown, kept secret by the game's anonymous creator. The extent of the players' knowledge of the World is what they glean from other players, and what is displayed on the screen, which shows a plan view, on which nearby Workers are labelled as anonymised dots, in the manner of radar. The screen shows nothing of the World itself, no geographical detail, no marker of speed, merely the relative movement of the other Workers.

Figure 1: Worker Display



Now, the key element, L.

As a player takes control of a Worker, the number in the bottom left of the display, labelled L, counts upwards from 0000000000. There is no explanation in the game's abstract as to what this figure represents. It is (as far as the players

know) data, nothing more. The only explanation is that it constitutes the goal of the game. Across the lifetime of a Worker (anything up to twenty-four hours), the task is to maximise this quantity L.

Let us suppose that there are prizes up for grabs.

The game goes live.

It soon becomes clear that certain Worker configurations result in higher L-yields. Proximity to other Workers tends to increase L-rate, solitude tends to decrease it. Groups who move in cohesive patterns get higher scores than random wanderers. Staying still seems ineffective, even in large groups, as does linear movement. A pair of Workers side by side, moving steadily, sharing information about L-gradient, gives a simple, robust method, but larger groups, if organised well, can be even more effective.

Communication is everything.

So, players talk, both in-World and out, and tactics disseminate. Flocking behaviours emerge. Teams of Workers chase L across the World in fours, fives, tens, twenties. Some players follow crowds of Workers, basking in the higher L associated with company, whereas others take the lead, organising hierarchies, promising feudal shares of prize money. Tactics appear: symbiotic and destructive parasitism, long-term coupledom, short-term coupledom. But, while are successful strategies, there is nonetheless considerable variation in same-player, same-Worker, same-couple, and same-group statistics, and no one has anything approaching the answer.

Weeks pass.

The prize pot increases.

2 Success and Failure

Before long, regular players are constructing broader theories. Larger cooperatives form - syndicates working long-term strategies - and L-yields rise across the board. Online fora fill with methods. Better paths are found, finer subtleties of movement, more detailed configurations of Worker and Worker. Techniques abound. Rookies follow old hands, sheep follow sheep, and theories give birth to new subtheories. Soon, players begin to propose metaphysics: L as a Worker emanation, L as a scalar potential, L as a vector-valued World function. Proximity theory, Dyad theory, Interaction theory. L is interpreted physically, as temperature, light, pressure, sound. There are Machiavellian theories, Hobbesian theories, Jungian theories, Utilitarian theories. There are empirical attempts to map the L-function geographically: the World is proposed as a torus, a sphere. As the data load increases, mathematicians develop optimisation algorithms to automate analysis of the L-harvest and speed up real-time decision-making.

Months go by.

And, with players numbering in the tens of millions, bigger syndicates begin to invest. A research consortium, Objective X, backed with private capital, sets about the rigorous testing of some of the more falsifiable hypotheses, with the aim of cornering the prize fund. The group floods the system with tens of thousands of players, streaming their feeds to a single server. Statisticians mine the data. And, at last, faint amongst the noise, a signal is detected. In long linear journeys, a repeating pattern of average L values is detected. Furthermore, all such straight-line journeys, if uninterrupted, show the same cyclic period, that is to say, 31900 seconds. Given the Workers' constant speed of movement, this implies that all straight lines close as circles.

The World, it seems, is a sphere.

For a time, the bosses of Objective X keep their secret, and clean up. Mapping the spherical World, they find areas of consistently higher return. The prize money flows in a torrent. Until, of course, the inevitable leak. The sphere model, sold by a disgruntled statistician, hits the public domain, and goes viral. A flurry of empirical activity ensues. Soon, the remaining gaps in the Objective X theory are filled, and the World is laid bare. Latitude-longitude is now everything. With the World fully mapped, previously abandoned ideas such as a global L function return to feasibility. It becomes apparent that certain coordinates have particular location signatures, making it possible for newborn Workers, using an open-source algorithm, to calculate their World-position in a matter of minutes.

L yields rise.

With geolocation reliably established, statistical quantities such as base rate and L consistency become widely used, and lead to strong returns. Those World-coordinates high in average L become well-known as "places in the sun." Competition breeds competition; success breeds success. Intra-world communication - the old method of the interactionists - is deprecated as unquantifiable: such flexibility is impossible to sustain in the face of algorithmically led crowds.

Soon, all unquantified models fall into disuse.

Then, following the homogenisation of all decision-making, the best geolocations become overpopulated. Tens of thousands of workers vie for position, and, in the ensuing crowds, movement through the high-yield areas becomes increasingly restricted. Worker-deserts form in between the hotspots. Players coalesce into sedentary masses, with responsive movement almost impossible, communication drops to a minimum. With movement impossible, there is nothing to be gained from Worker-to-Worker interaction. As the game crusts over, grinding to a standstill, sphere theory eats itself.

L yields begin to fall.

The anti-sphere interactionists argue that something is amiss. They see L yields increase locally whenever quantification is abandoned. Simply put: the old methods work. But, whenever sphere theory is tested - as it has been a thousand times - it passes with flying colours. The wealth of evidence is overpowering: the World of the Workers is undoubtedly a sphere. Thus, as the syndicates say, it would be sheer stupidity to pretend otherwise. And, indeed, every hypothesis that goes up against the mapping of the L function dies an empirical death. Players complain about the game's stagnation, but there is no way around the stalemate.

Until, that is, a new theory arises.

3 The Higher

A writer writes:

L rate depends on two things: firstly, interactions between Worker and Worker, and secondly, the structure of the World itself. Clearly, progress must combine the two. Theories of interaction ignore the World, and theories of the World ignore interaction. Neither model is broad enough to include the other. So, the writer reasons, to model the reality underpinning both World-physics and Worker-interaction, a step must be taken beyond both realms. To this end, seeking an Archimedean point, the writer proposes the existence of a three-dimensional entity at the centre of the spherical World.

The writer calls this object "The Higher".

Naturally, there is mockery from the sphericists.

The writer writes:

Let us interpret L, that stream of abstract, scalar information, as the product of some hitherto-unconsidered, three-dimensional interaction between the Workers and the Higher, rather than as a field restricted to the surface of the 2-sphere. Let us imagine further, in line with Interaction Theory, that Workers interact not with each other, but with the Higher. Let us frame both models - the Objective X sphere and Interaction Theory - in three-dimensional terms. After all, we have never found objective evidence for two-dimensional interactions, so let us propose some sort of three-dimensional interaction between Workers and the Higher, which will allow for a unifying theory.

"Extraterrestrial nonsense," the sphericists say.

"The World isn't all there is," the writer replies.

"So, the Higher is merely Russell's teapot?"

"No, Russell's teapot brooks no data."

The statisticians smirk: "Neither does this hypothetical Higher!"

"L is the data."

"But L is World data," the sphericists say.

The writer continues:

Is it really? Must L be world-data?

L is abstract. It is unitless, dimensionless, it appears as if by magic. Its source isn't intra-World, nor is it extra-World. It simply is. The mistake of sphere-mindedness, of latitude-longitude blindness, is to place such a thing in two dimensions axiomatically, based only on the fact that the rest of the game's sense-data, that is to say, the radar display, is demonstrably two-dimensional. But, beyond assumption, beyond generalisation, by what power do we take L as necessarily a product of the 2-sphere? We know, having established the World of the Workers as a 2-sphere, of a central 3-space.

What denies L its origin there?

"Such an idea is pure conjecture!"

"So is sphere theory," the writer replies.

"But sphere theory has passed all the tests."

"Except the only one that matters."

"That's a blip. The theory is empirically verified."

"Which," the writer says, "is exactly its weakness."

The statisticians recoil: "What of the scientific method?"

The writer replies:

What of it? L yields are falling. A method that can't account for the interactions between individual and individual is just that, a method. It can only apply to coordinates, to metal and mud, to protons and pions. Even for L, for something this simple, we need a more flexible tool. The sphere model, which is implied by sense-data, is correct, of course, but that doesn't stop it being wrong. There is clearly more to the game. The World of the Workers is a sphere, yes, but the complexities of L go deeper. What's the point of knowing the World, if we don't understand its Workers?

"And what of the fact that this Higher can't be measured?"

"It can be measured," the writer says, "by L."

"But that's abstract! What of falsifiability?"

"Half of all falsifiability is cowardice."

And this is the uncomfortable truth.

With its overtones of objectivity, the impressive-sounding "falsifiability" is necessarily egology, and can, therefore, never apply to the full scope of the soul's existence. Every falsifiable theory is one-sided by definition, which renders it useless for anything other than control of the objective physical environment. Hence all of the symptoms of our current sickness. Verifiability, contrary to

its etymology, pertains to objective correctness. Truth is the ability to bring harmony not just to the ego, but to the soul. Those two worlds are the same, which means that unifying theories must be both objective and subjective.

Thus, at least in part, unfalsifiable.

This isn't to condone New Age quackery.

Most unfalsifiable things are worthless crap. Quoting Heisenberg's uncertainty principle in order to get away with selling vaguery is petty theft. There are plenty of quantum fools out there. In order for a theory to qualify as worthwhile, it cannot be objectively incorrect. Nor, indeed, can it be so nebulous as to make no effective statements. But that doesn't mean that it must be falsifiable. Such an inherently negative attitude outlaws destiny, meaning, purpose, and, in the long run, guarantees the atrophy of the soul, which is the world's disaster.

Every worthwhile theory must go beyond objectivity.

Let us, therefore, take the writer's Higher, and, in line with the mathematical myth, extend it to our own existence. As with the Workers, there is too much in this life that cannot be explained by the rational Weltanschauung. There are too many unaskable questions. Abstract data comes to us endlessly in L-streams: soulglow, purpose, conscience, heartache, all of the things that make a real life. Currently, these are placed in the World, reduced to the ebb and flow of chemicals, but that is no more than assumption. Has the lab shown that love is mundane? Will it ever? Is there any evidence that the psyche is housed in 3-space?

No, no, a thousand times no!

Precisely the opposite is true, in fact.

What is more abstract, more World-free, than soulglow?

So, let us consider our own 3-universe - its physical structure, and the lives inside it - as a higher-dimensional analogue of the World of the Workers. Just as their senses were restricted to the two dimensions of their radar, we are likewise to our three. Leaving time as a flow for now, we can, therefore, imagine our universe - in line with one of the orthodox topologies - as a 3-sphere, also known as a glome, a higher-dimensional hypersphere sitting in 4-space.

Thus far, such a move is standard.

However, while cosmology has been happy to imagine the universe as a 3-sphere, it has rarely taken the next step, which is to recognise that a 3-sphere universe allows for a four-dimensional region enclosed at the centre of the sphere. This region sits within the 3-world, in hypervolume-based, "overarching observer" terms, and yet also beyond it, from our volume-based, human-

eye-view point of view. A sphere encloses a volume; a hypersphere encloses a hypervolume. This is to propose our universe as a boundary, as a bubble, as a three-dimensional skin surrounding a deeper four-dimensional region.

The usual, rational assumption is that this region is empirically "out of bounds", and should therefore be excluded from theory. But, despite the instinctive shiver, we have many reasons for moving into it. Firstly, we know that meaning comes from the unknown. Secondly, we know that consciousness is not explained by material neuroscience. Thirdly, quantum physics has shown there is no objective reality. Fourthly, neither love, individuality, honour nor destiny has any home in "rational" theory. Fifthly, we know that only higher-dimensional thinking can unify the physical and the psychic. Sixthly, intuition says so.

Therefore, given a 4-hole at the centre of the universe, given a thousand L streams begging for explanation, given the need for the rebirth of God, given the ravaging of our planet, given the deep and terrible malaise that has settled in Western hearts, given our own yearning for life, given all the thousands of reasons why we cannot remain "just so", let us seek an overarching theory that, for once, includes not just pions and gluons, not just religion, not just physics, but us: love, cosmology, destiny, hope, quantum physics, particles and darkness. We need the objective grandeur of theoretical physics and the irrational grandeur of myth and religion; the yang rigour of mathematics and the yin rigour of depth psychology; the logic of the head and the courage of the heart.

We need rebirth.
A return, but Higher.