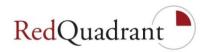
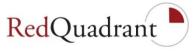
I have come to sing songs to your cat







A meta-contextual joke

So a man goes to eat at a fancy restaurant. He's "By the way, I should let you know that you never been there before and is excited about having a nice meal. As his soup arrives, he accidentally knocks his spoon onto the floor with his elbow. To his surprise a waiter promptly hands so he told us to tie this piece of string to picks up the dirty spoon and gives him a clean one right out of his shirt pocket.

"Wow, you guys all carry spoons in your pocket?" he asked.

"Well sure." the waiter replies. "We had an efficiency consultant in last week and he told us pants?" we could increase over all productivity by 3.5% by carrying fresh spoons in our pockets so now we all do it."

"Wow that's impressive," the man says.

Later in the meal, he beckons the waiter over again, and says, confidentially

have a piece of string hanging out of your fly."

"Oh we all do!" the waiter says. "The consultant said we were wasting a lot of time washing our ourselves. So when I need to go, I just use the string. Since I never actually touch myself, there's no need to wash my hands!"

"I see." Says the man. Slight pause. "So how do you get your - you know - back into your

The waiter leans in even more confidentially.

"Well, sir. I don't know abut these these other guys, but personally, sir, I use the spoon."

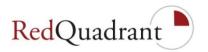
I come to this from a consultancy / transformation perspective



Metacontextuality

- What does this word mean to you?
 - Meta: referring to a higher or second-order, about it's own category, referring to context or conventions, self-referential
 - Context the circumstances that form the setting for an event,
 statement, or idea, and in terms of which it can be fully understood.

'Are you making sense of the way the world is, or making the world the way you sense?'
Arthur Battram

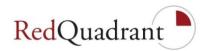




The map

- 'This incident... happened during military manoeuvres in Switzerland. The young lieutenant of a small Hungarian detachment in the Alps sent a reconnaissance unit into the icy wilderness. It began to snow immediately, snowed for two days, and the unit did not return. The lieutenant suffered, fearing that he had dispatched his own people to death. But on the third day the unit came back. Where had they been? How had they made their way? Yes, they said, we considered ourselves lost and waited for the end. And then one of us found a map in his pocket. That calmed us down. We pitched camp, lasted out the snowstorm, and then with the map we discovered our bearings. And here we are.'
- ...and the map?
- 'The lieutenant borrowed this remarkable map and had a good look at it. He discovered to his astonishment that it was not a map of the Alps, but a map of the Pyrenees.'

From Sensemaking in Organizations, Karl Weick



This is a lecture – here are the sources

- A first lesson in meta-rationality David
 Chapman
 https://meaningness.com/metablog/bongard-meta-rationality Thanks @michaelthaber
- The Fleas in the Jar Experiment. Who Kills
 Innovation? The Jar, The Fleas or Both? Chris
 Bolton
 https://whatsthepont.com/2017/01/29/the-fleas-in-the-jar-experiment-who-kills-innovation-the-jar-the-fleas-or-both/
- Locking our own orientation Chet Richards
 https://slightlyeastofnew.com/2017/02/23/locking-our-own-orientation/
- Symmathesy: A Word in Progress Nora Bateson <u>https://norabateson.wordpress.com/2015/11/03</u> /symmathesy-a-word-in-progress
- A glimpse at the metaphysics of Bongard problems - Alexandre Linhares
 http://app.ebape.fgv.br/comum/arq/Linhares2.p
 http://app.ebape.fgv.br/comum/arq/Linhares2.p
- Metarationality: a messy introduction <u>—</u>
 https://drossbucket.wordpress.com/2017/09/30
 /metarationality-a-messy-introduction/

Supporting sources

- Overview: https://en.wikipedia.org/wiki/Bongard_problem
- Harry Foundalis, Bongard maven:
 http://www.foundalis.com/res/diss_research.ht
 ml
- Bongard game 'rules' (there are none, really):
 http://www.foundalis.com/res/invalBP.html
- Index of Bongard problems:
 http://www.foundalis.com/res/bps/bpidx.htm
- Hofstader: Godel, Escher, Bach: the eternal golden braid pp. 646-662
- NB
 https://en.wikipedia.org/wiki/Raven%27s_Progresive_Matrices
 ssive_Matrices
 — identify the missing element that completes a pattern

And the works of Alasdair MacIntyre, and much, much more...



Mikhail Moiseevich Bongard



Mikhail Moiseevich Bongard Михаил Моисеевич Бонгард

M. M. Bongard (1924 – 1971) was a Russian computer scientist. He graduated in the early 1950's from the Department of Physics of the University of Moscow. Since 1958 he started using computers to study the process of *pattern recognition* considering it to be at the foundation of mental processing. During 1959–61, Bongard and his colleagues created two training programs for recognition and classification: "Arithmetic", and "Geometry". His book, "The Problem of Recognition", published in the U.S.S.R. in 1967 (appeared as "Pattern Recognition" in its 1970 English translation), introduced a number of visual puzzles in its Appendix, which later became known as "Bongard Problems" (BP's). BP's are primarily problems of visual *categorization*, and thus played an important role in the disciplines of cognitive psychology and cognitive science.

Bongard's book contained 100 BP's, but later other people added more to the collection. A quite extensive repository of BP's, including all the original 100, can be found on this page.

Bongard died in 1971 during a hiking expedition in the Pamir Mountains.

Pattern recognition



Bongard games

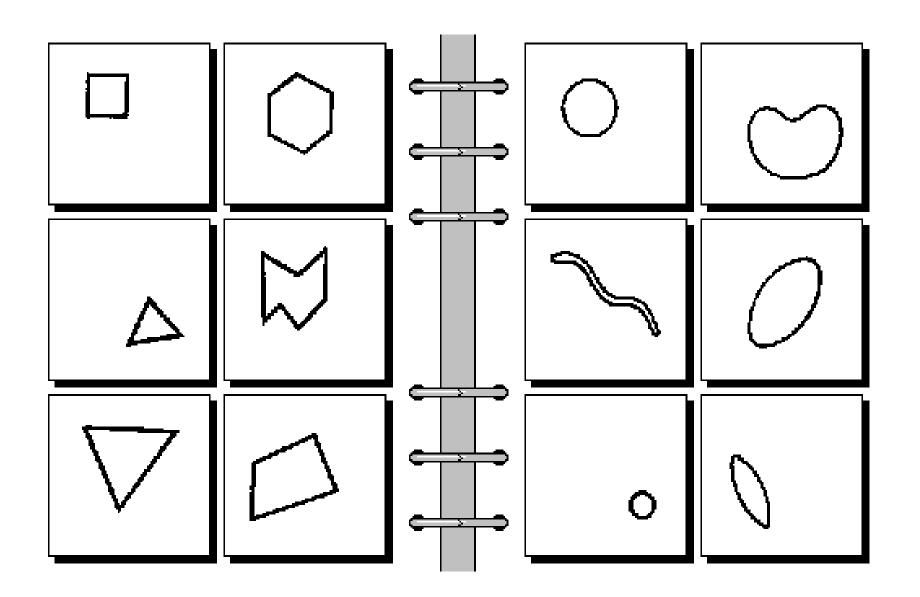
- Two sets of diagrams on either side of a page
- You must formulate a convincing rule that decides how the images are classified left or right. This must unite each group, and distinguish both groups. Portmanteau or 'if... then' arguments are not allowed.
- There can often be more than one potential solution (in fact it's arguable there are infinitely many) but the solution should be intuitively obvious once you find it! You're looking for the 'aha!' moment
- Much is irrelevant
- You get a neat final solution not like life

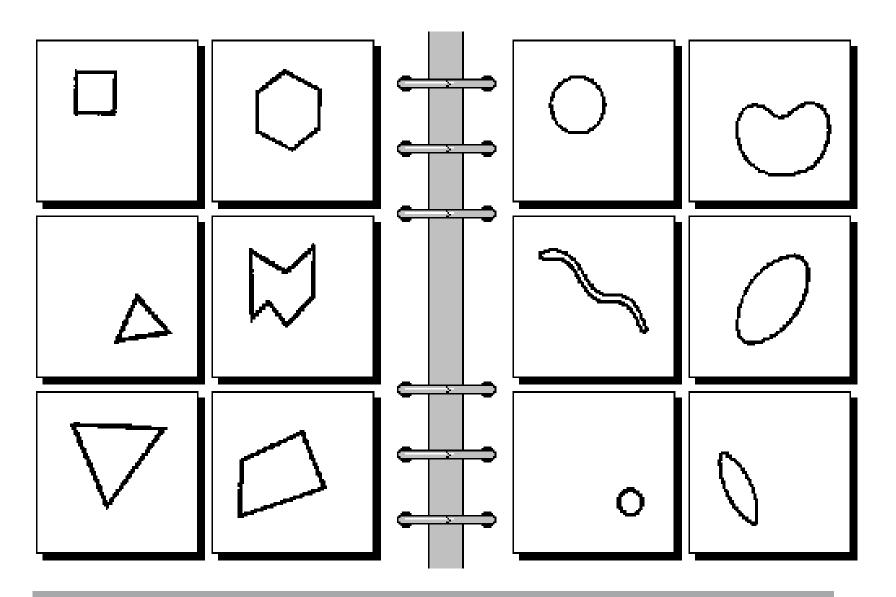
'The pattern that connects'



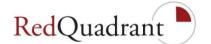


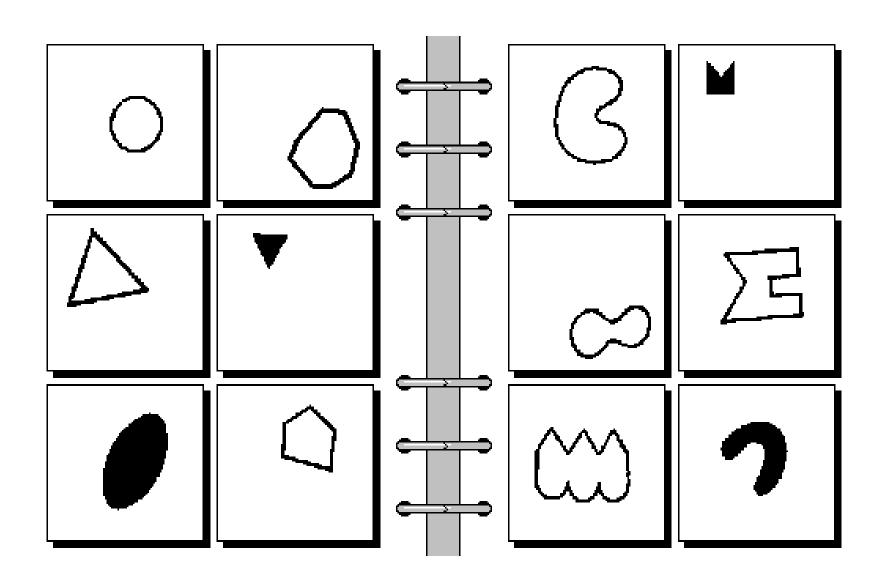
LET'S PLAY!

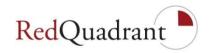


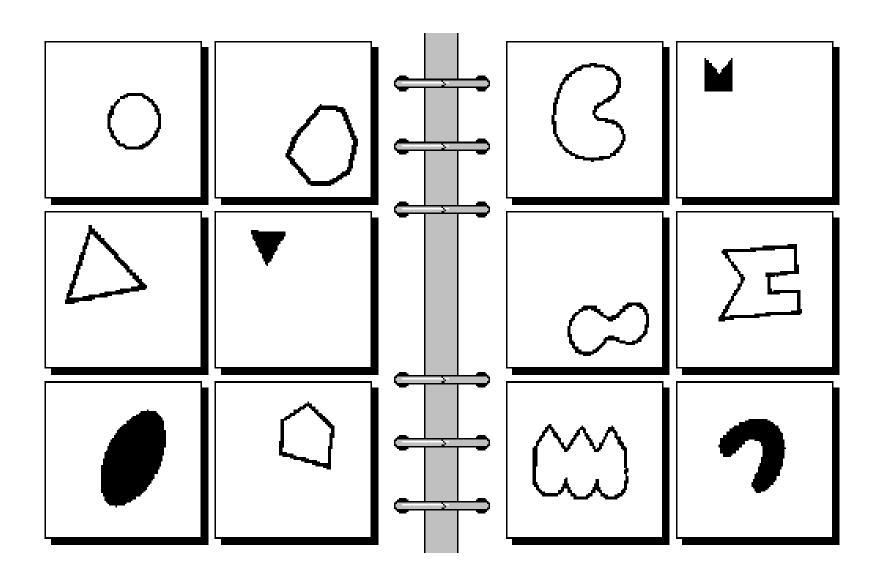


Sharp corners vs curved corners

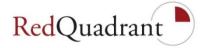


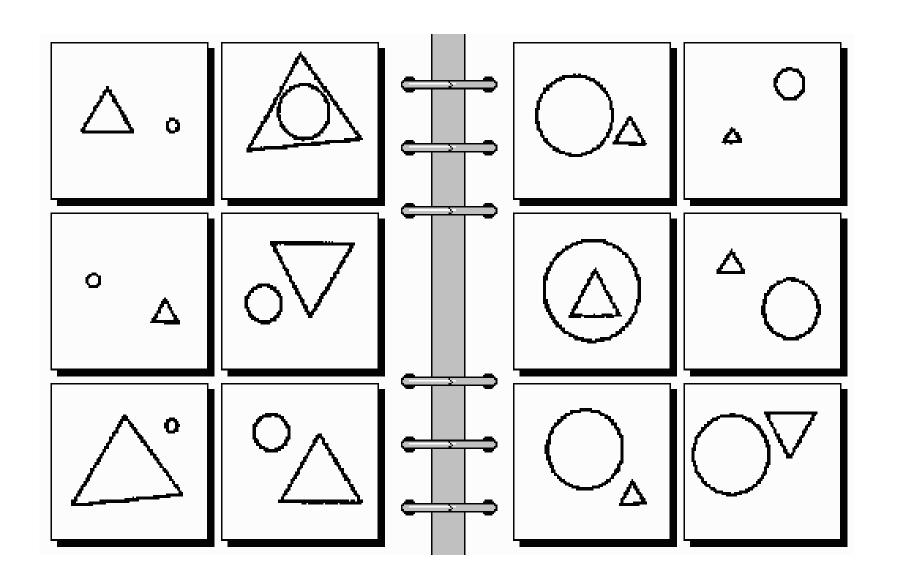


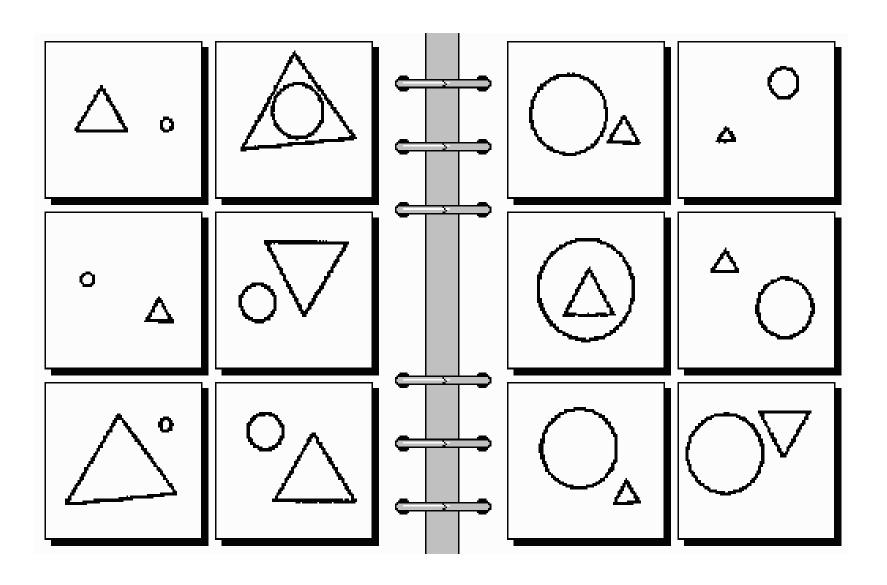




Convex vs concave

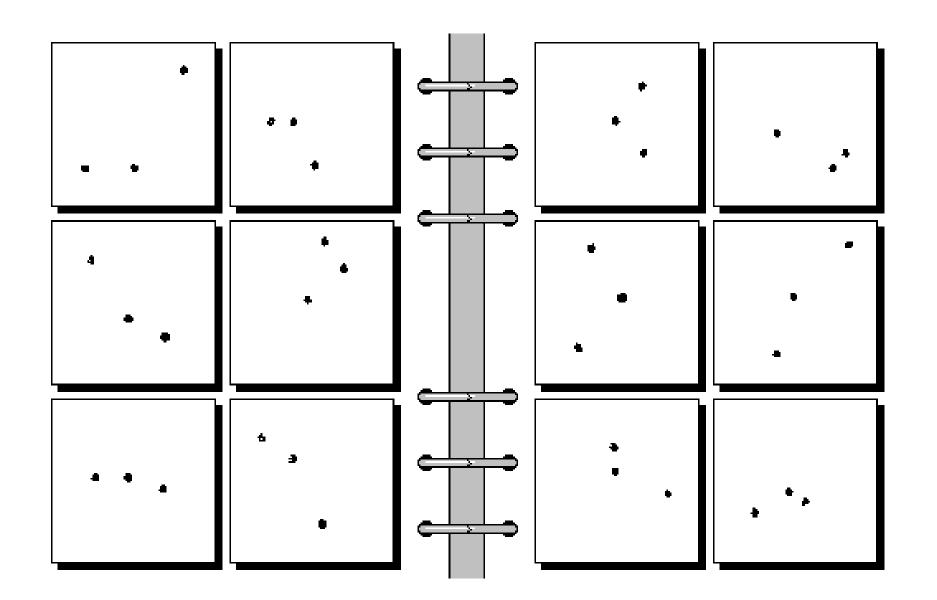


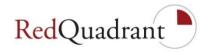


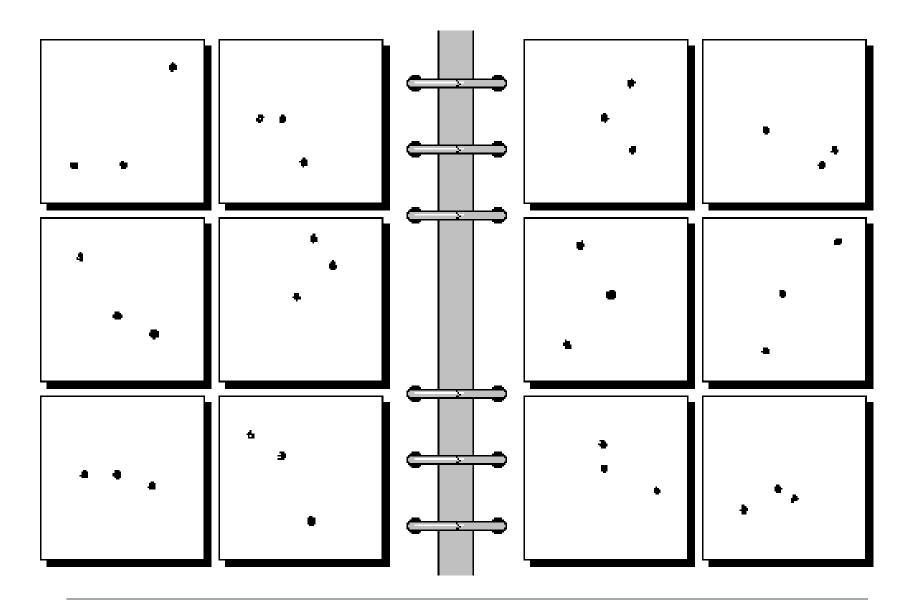


Bigger/smaller relationships of triangle and circle

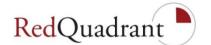


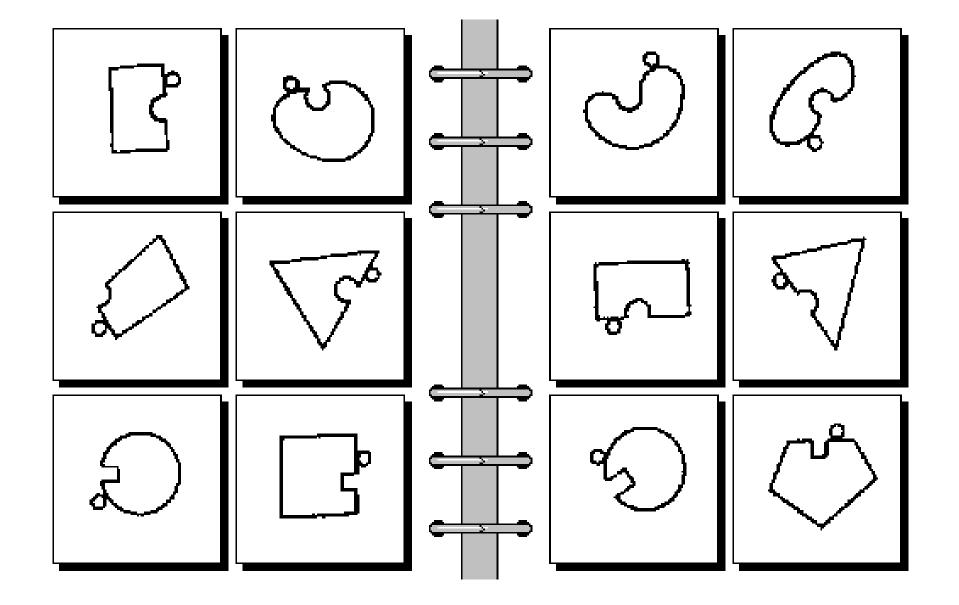


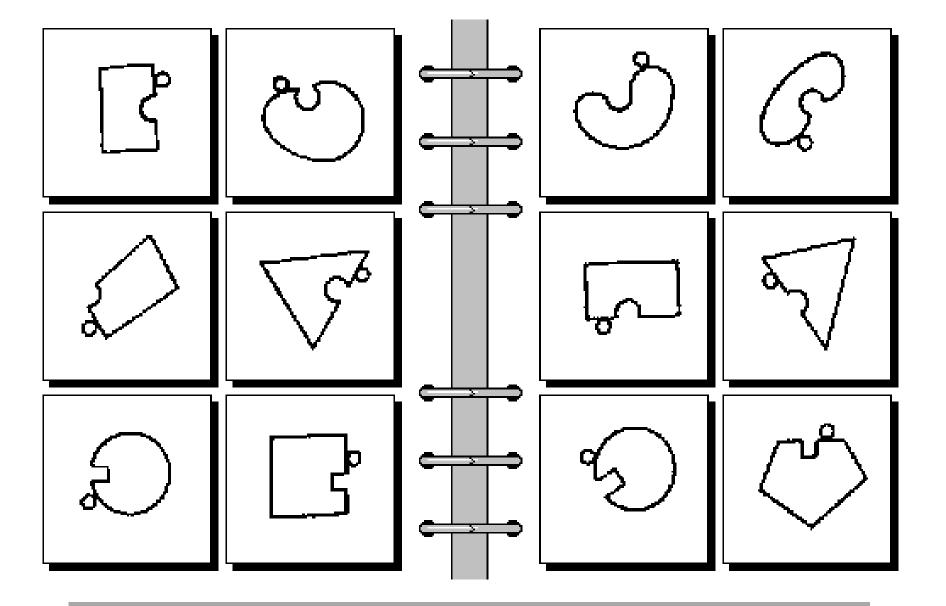




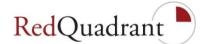
Distributed evenly across horizontal or vertical axis

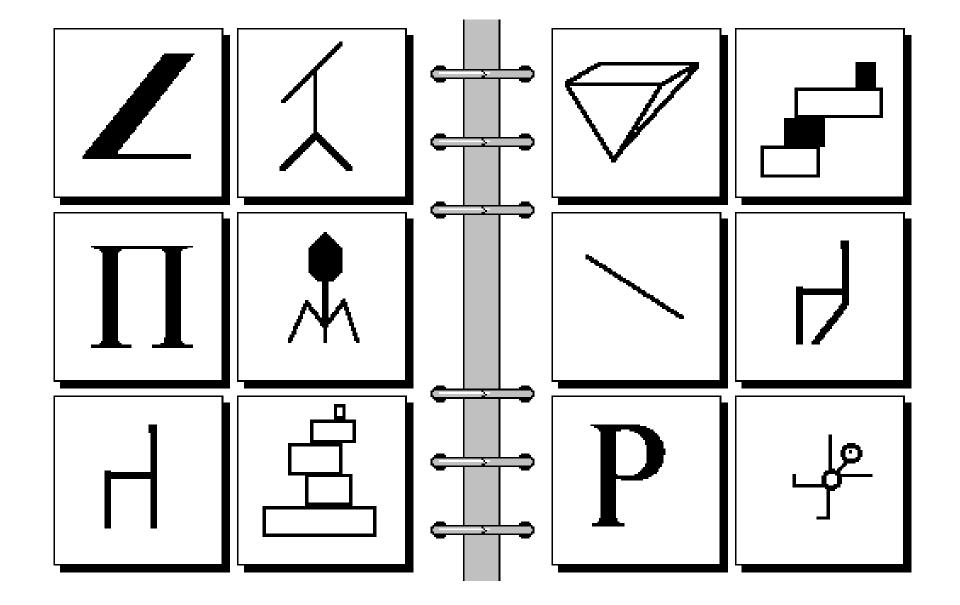


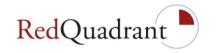


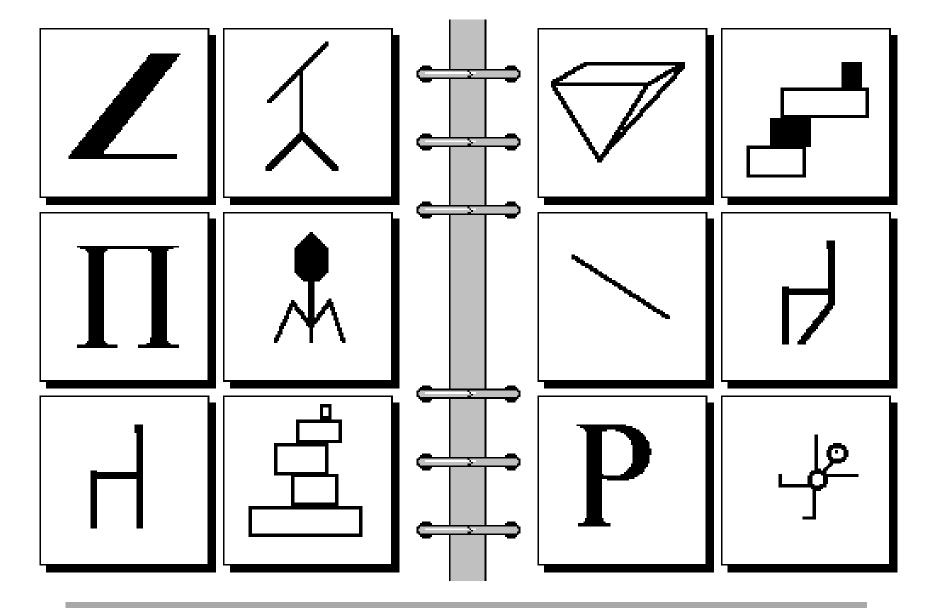


Blob is (counter)clockwise from cut-in

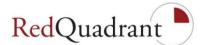


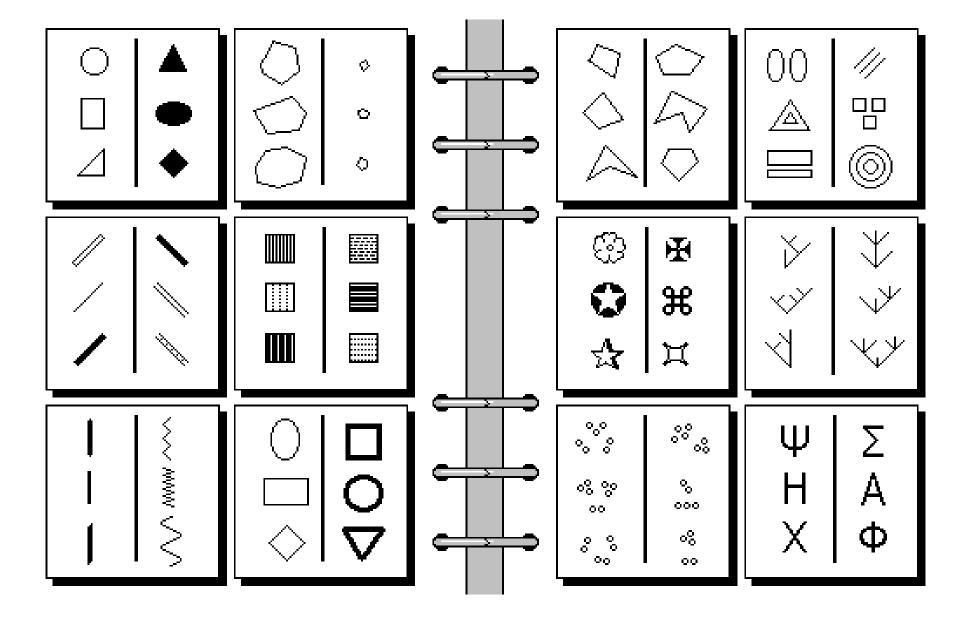


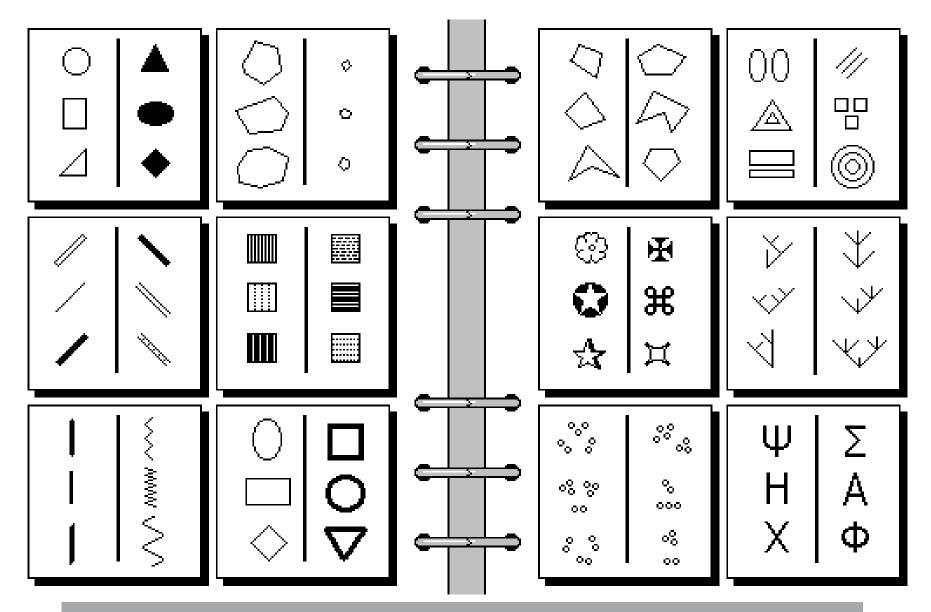




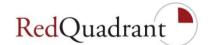
(Un)stable when considered viewed sideways-on under gravity

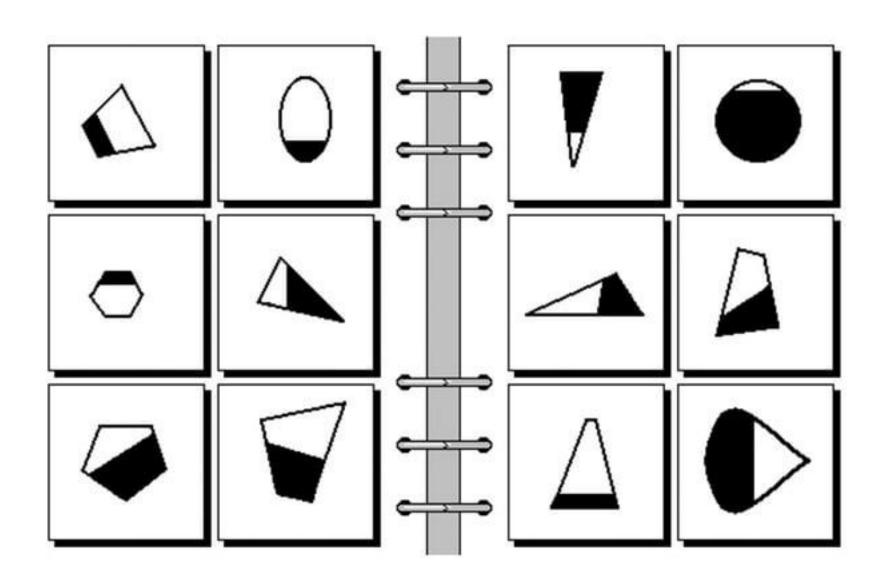


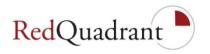


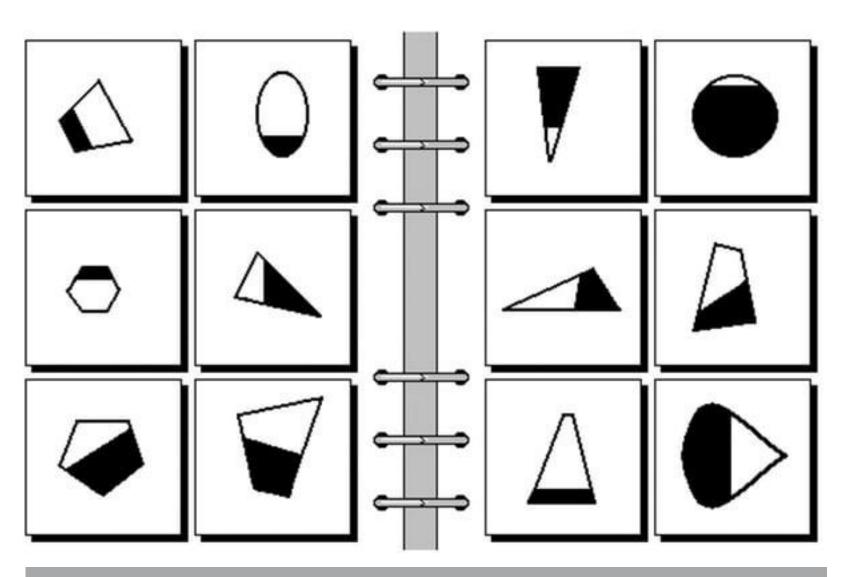


Types of properties vs numbers of properties (proper meta!)

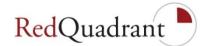


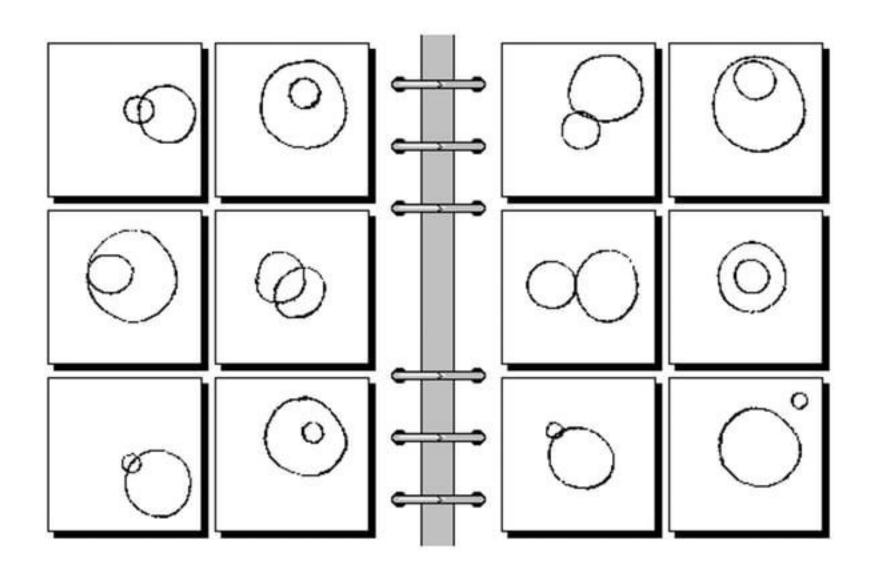


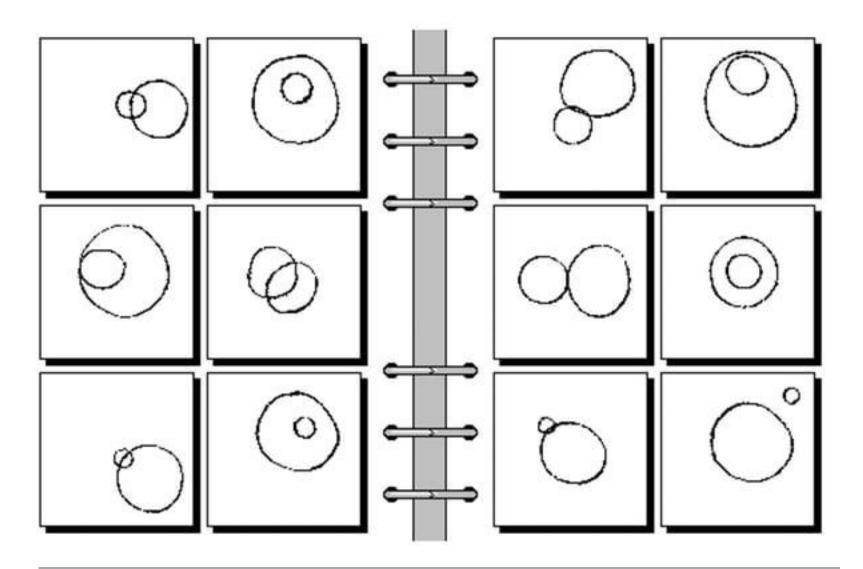




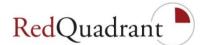
Shading/white towards the pointy end of the shape

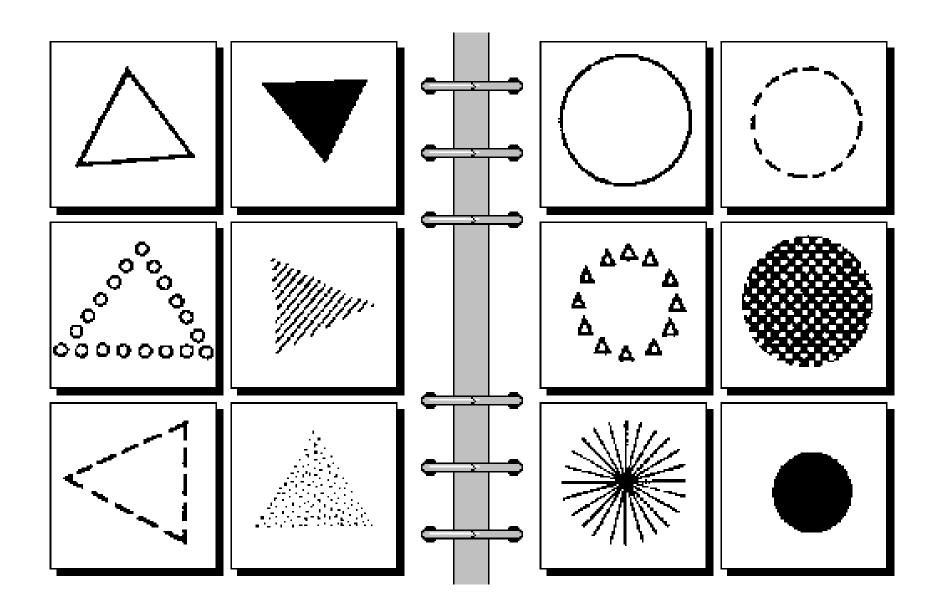


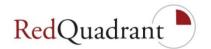


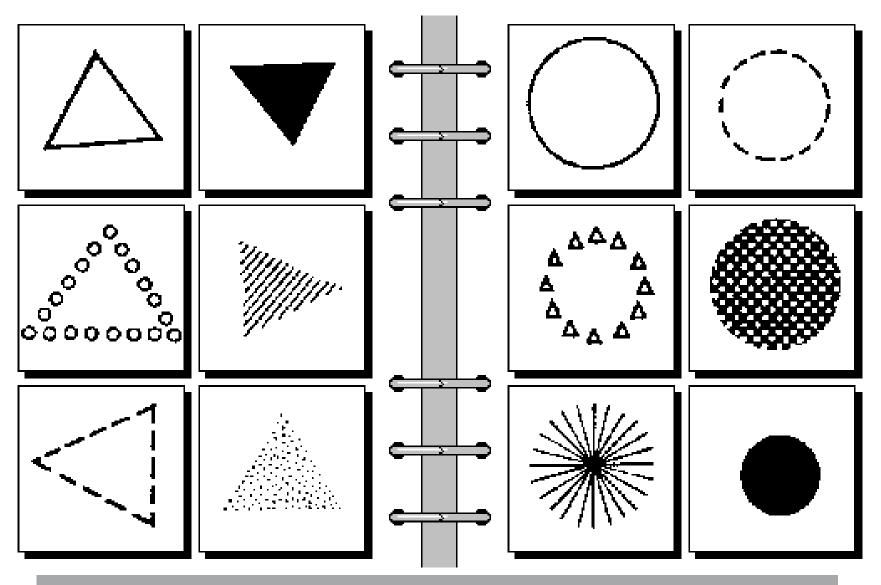


One circle (doesn't) intersects(s) the middle of the other

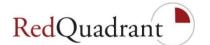


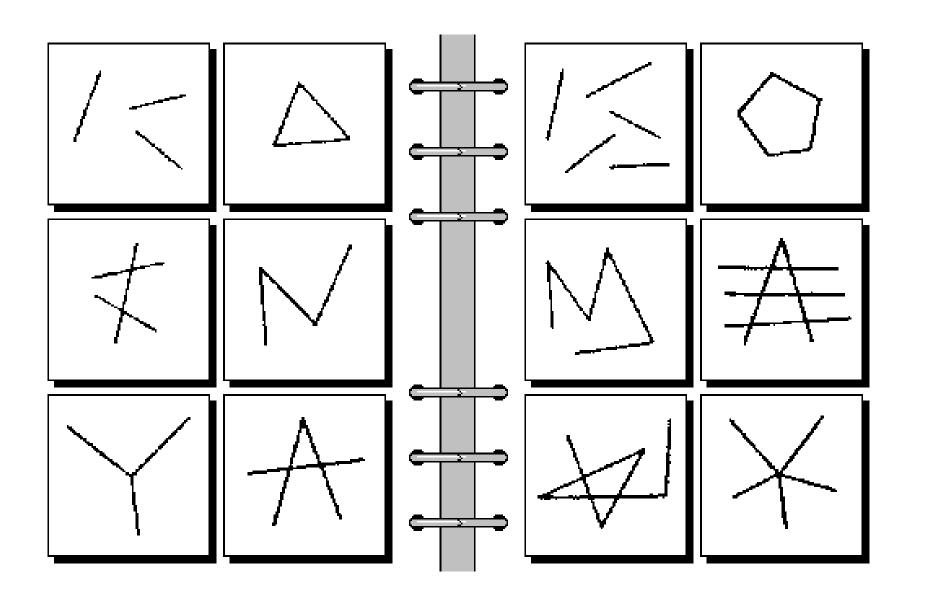


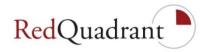


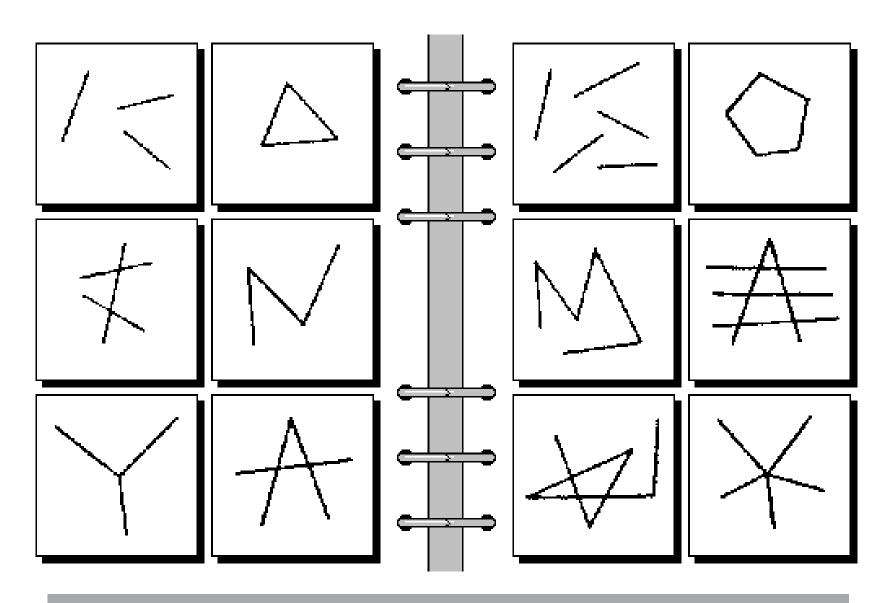


Triangle-ish things vs circle-ish things

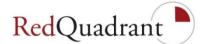


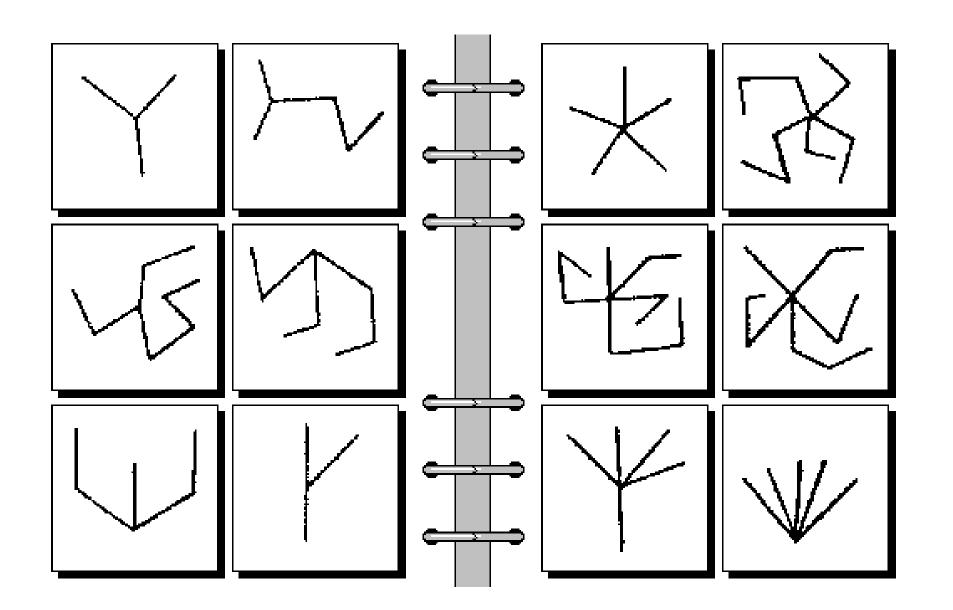


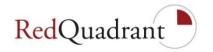


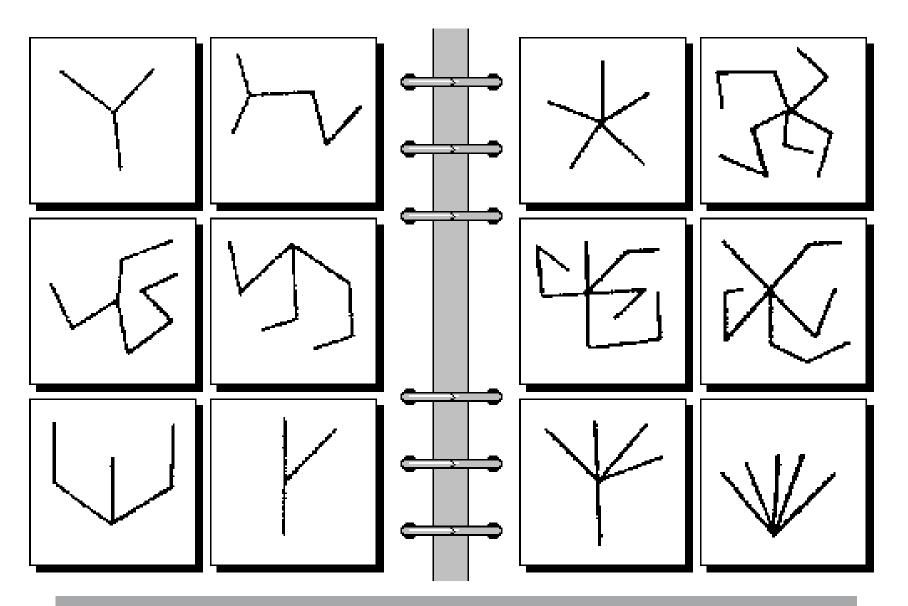


Three lines vs five lines



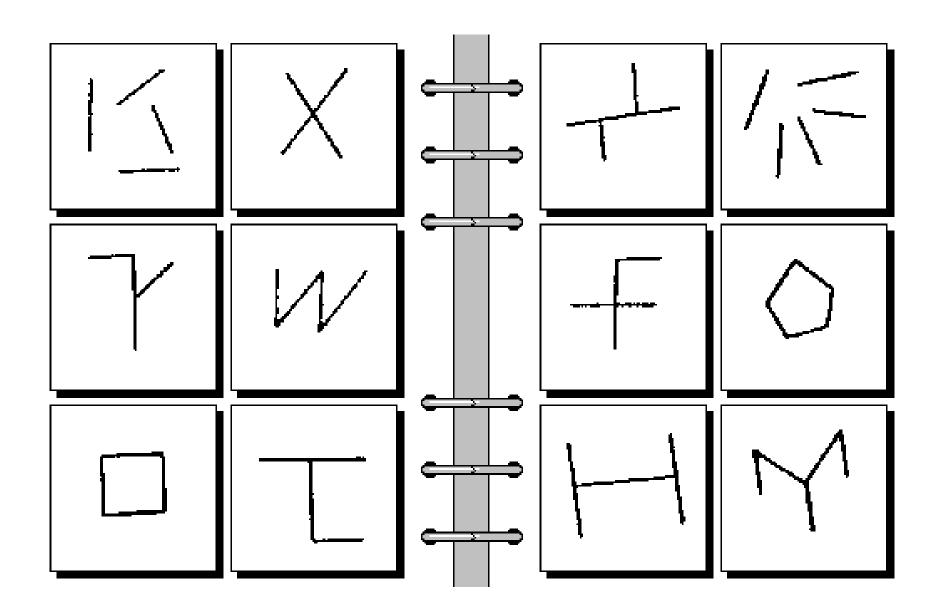


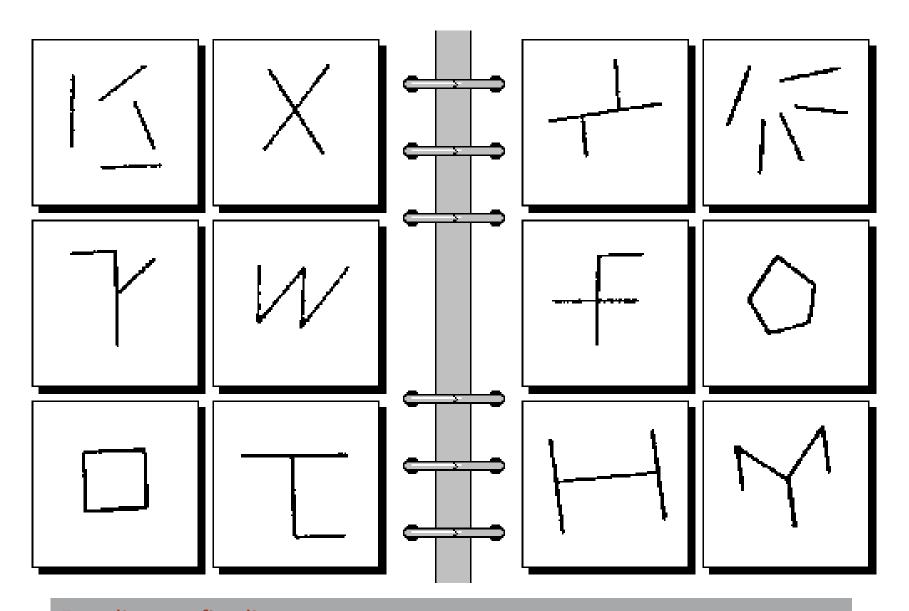




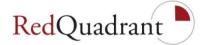
Three vs five end points (maximum x lines emerge from one point)

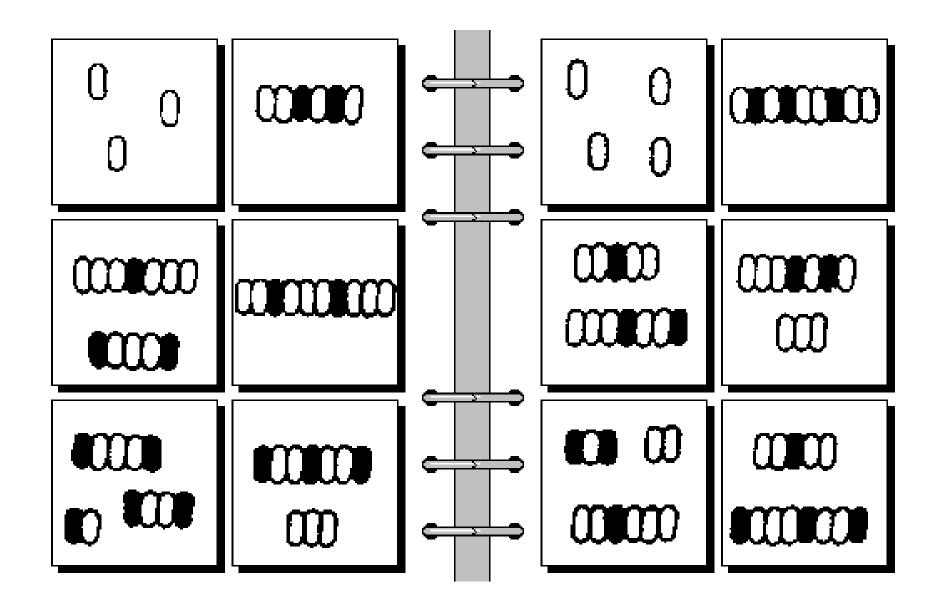


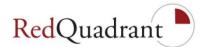


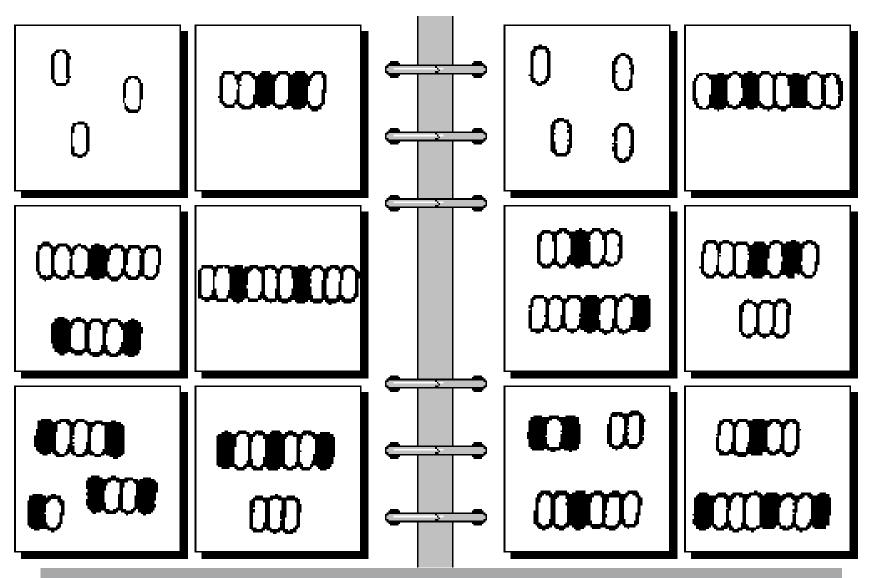


Four lines vs five lines

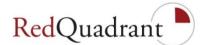


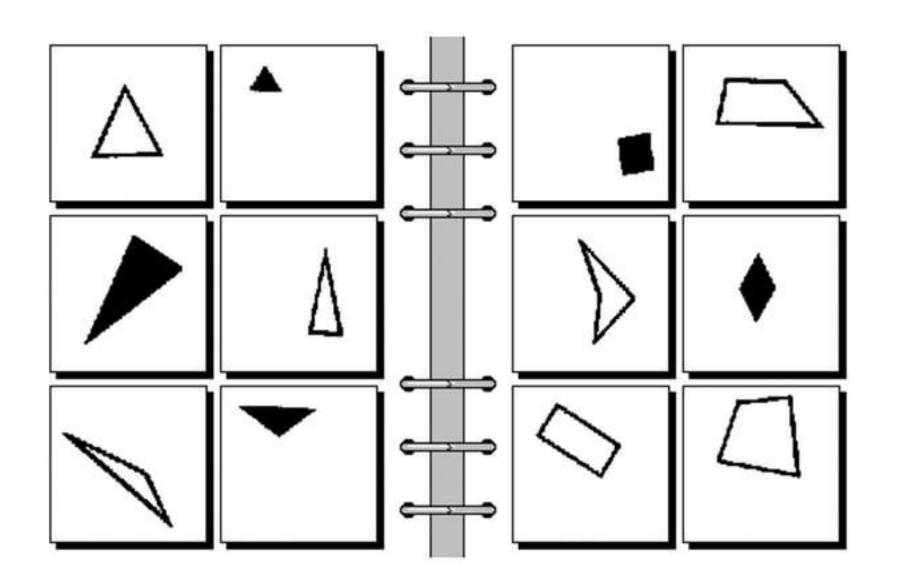


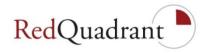


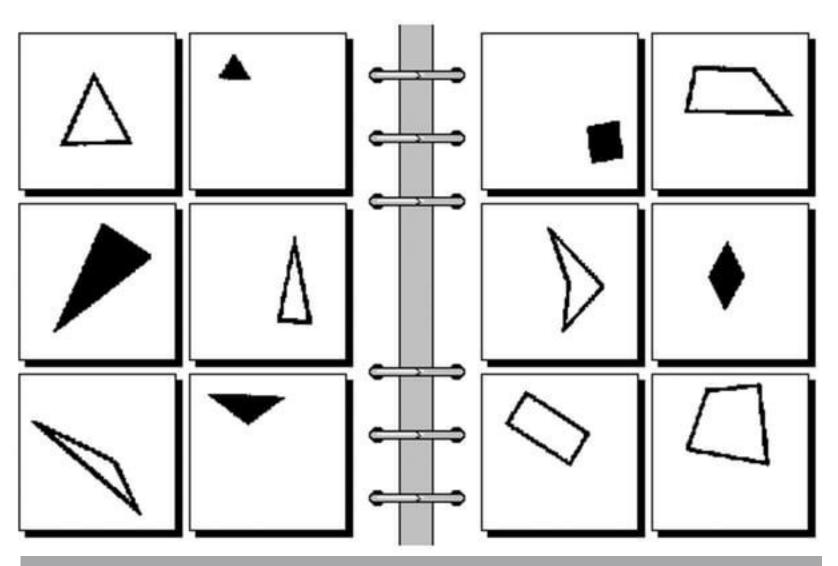


Three vs four groups of white blobs (separated by black blobs)

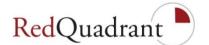








Three line shapes vs four line shapes





THINGS ABOUT BONGARD GAMES

Cultural factors

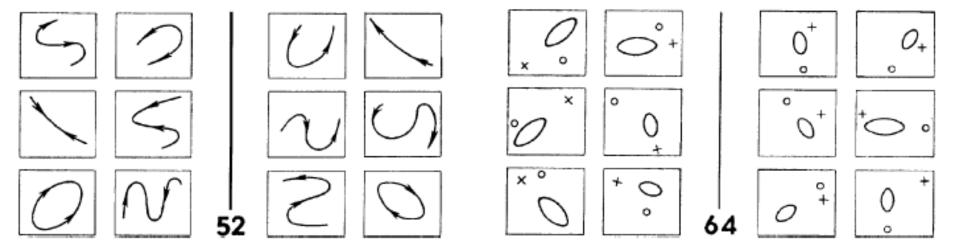
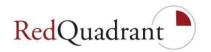


Fig. 2. Bongard problems BP#52 and BP#64 demonstrate the influence of cultural factors. [From M.M. Bongard, Pattern Recognition, Spartan Books, 1970.]



Multiple potential descriptions

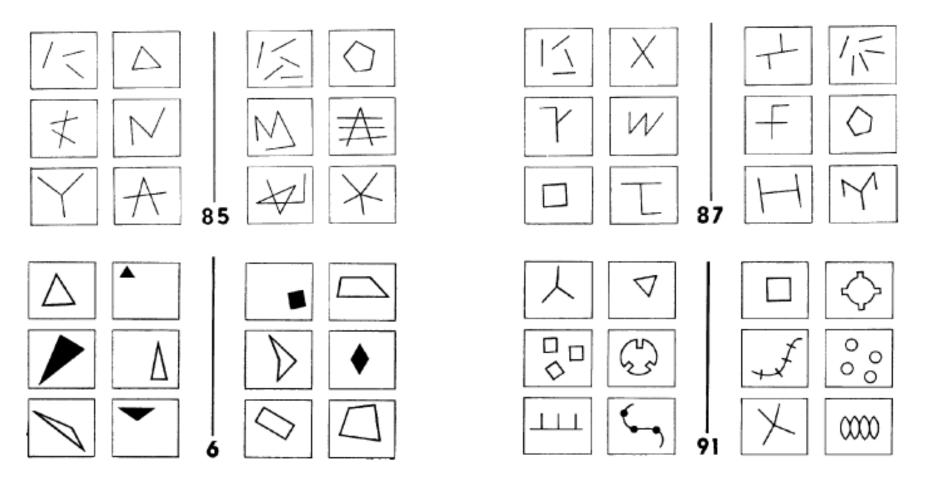
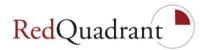


Fig. 4. Bongard problems require multiple potential descriptions—even for arrangements as simple as line segments and triangles. [From M.M. Bongard, Pattern Recognition, Spartan Books, 1970.]



'Seeing as'

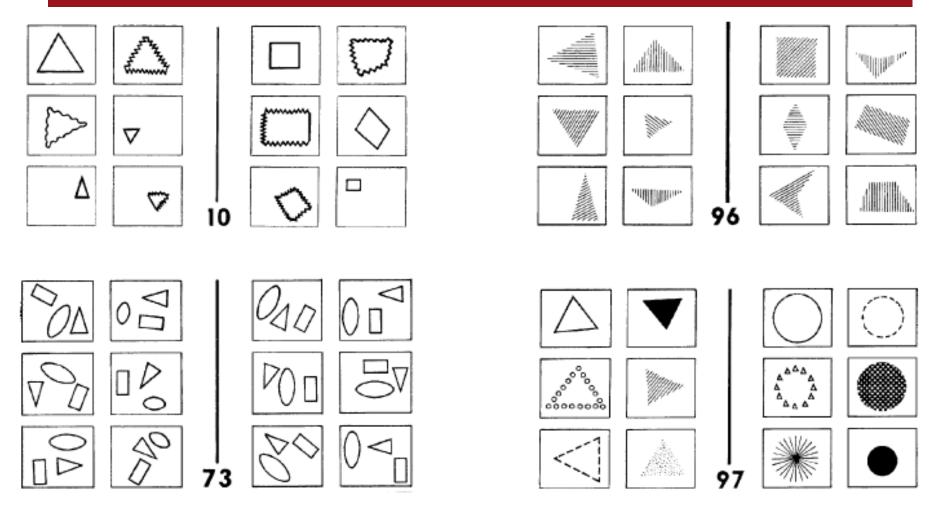


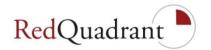
Fig. 5. Bongard problems require "seeing as". [From M.M. Bongard, Pattern Recognition, Spartan Books, 1970.]



ABOUT BONGARD GAMES AND THEIR IMPLICATIONS

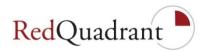
About Bongard games and their implications

- 1. As originally conceived, this game has a limited rule-set. But it is easy to imagine an unconstrained version of this game which could use any conceivable ruleset from different geometric rules left and right (the original game) to weight of gravity, to the way images would fit as Tetris pieces, to the meaning of the symbols as Armenian alphabet letters.
- 2. There is no ruleset which would allow us to play this unconstrained game, no method, no formal steps. Some heuristics might help, and in certain iterations, certain rules/methods might be the solution.
- 3. This seems to be a 'human-complete' problem.
- 4. Problem formulation is critical heuristics, formal models, abstract from irrelevant detail, choice of descriptive vocabulary which makes explicit distinctions used in solution.
- 5. 'Vocabulary selection requires careful, non-formal observation of the real world. If a problem seems too hard, the formulation is probably wrong. Go back to reality, and look at what is going on'.



About Bongard games and their implications /2

- 6. Linear path (waterfall) risky: tentative, fluid, play, slippage, bending (Hoftstader) – but not wishy-washy!
- 7. Meta-rationality does not reject systematicity but uses it
- 8. 'Systems can never be made to work in their own terms, and rationality's promises of certainty, understanding, and control are all lies.' Chapman
- 9. A meta model for meta cognition, explaining for example why consultants shouldn't codify method (and, perhaps, why method /can't/ be codified) –any method/toolset/worldview is necessarily limited in a world with infinite potential rulesets
- 10. From early Wittgenstein ('the world is everything that is the case', the ladder we climb and pull up after ourselves, and 'whereof we cannot speak, thereof we must pass over in silence the logical absolutist sucked into dualism by the mystical) to later Wittgenstein word games and language acts, meaning-making we live inside of



About Bongard games and their implications /3

- 11. In the real world, we are playing an unconstrained game. Just as every project is constrained (intentionally though often this is forgotten) by its context, every method is a solution to a problem in a context or a set of imagined contexts.
- 12. If systems thinking is to be meaningful, it must include the potential to escape context to some degree. And that any method or approach is context-situated and therefore *de facto* inadequate to complexity.
- 13. Enactivism, embodied cognition, and (dare we tread there) biology of cognition, sociology of knowledge and second-order cybernetics would have something deeper to add here.
- 14. The 'systems thinker' represents a constellation of the theories and people they have studied with, their own experience and predispositions etc (DavidIng). Compleat methods actually reduce the variety complexity of the agent.
- 15. Systems/cybernetics/complexity teaches multiple contextual views but seems to do so only at 'peak moments' before subsiding back into restricted contextuality as it is 'applied' to 'specialisms'.

 RedQuadrant



The origins of this piece are discovering the work on www.meaningness.com through a tweet from @michaelthaber

MEANINGNESS

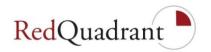
Meaningness

- 1. Is a jam jar one object, or two, or three? It depends.
- Science is massively more intuitive than you'd expect.
- 3. 'We are always walking on clouds' it's assumptions all the way down (turtles). Or analogies all the way down (Hofstader)
 Or snakes all the way down (Varela self-reference)¹
- 4. 'Every word is a prejudice' Nietzsche (a philologist)
 'by writing it down, the process would become crystallized' (Ohno, The Toyota Production System, 1988) (and competitors could read it!)
- 5. 'The metaphor of mechanism is so deeply woven into our culture that, of course, systems thinking is adopted into this paradigm' Nora Bateson
- 6. A physical experience is communicable and communicates, esthetics too.
- 7. Fiction is more of a lie than art, and why non-fiction more than fiction.
- 8. Heart of darkness, and crossing boundaries the missionaries.
- 9. Douglas Adams: 'perhaps they come to sing songs to my cat?'



Meaningness /2

'A classic tenet of cybernetics is that 'the controller of a system needs to have at least as many degrees of freedom as the system it is intended to control.' ... (Ashby, 1958). It appears that modern science, in its efforts to act as a controller, has chosen to reverse this law such that the system being controlled must be reduced to the same number or less of degrees of freedom available to the model chosen to model (control) it. Modern science's method of control is *the model*.' Michael Lissack <a href="https://model.report/s/ooiawg/second_order_science_putting_the_metaphysics_back_into_the_practice_of_science_putting_the_metaphysics_back_into_the_practice_of_science_putting_the_metaphysics_back_into_the_practice_of_science_putting_the_metaphysics_back_into_the_practice_of_science_putting_the_metaphysics_back_into_the_practice_of_science_putting_the_metaphysics_back_into_the_practice_of_science_putting_the_metaphysics_back_into_the_practice_of_science_putting_the_metaphysics_back_into_the_practice_of_science_putting_the_metaphysics_back_into_the_practice_of_science_putting_the_metaphysics_back_into_the_practice_of_science_putting_the_metaphysics_back_into_the_practice_of_science_putting_the_metaphysics_back_into_the_practice_of_science_putting_the_practice_practin_practice_practice_practice_practice_practice_practice_practice_





THE FLEAS IN THE JAR: LOCKING OUR ORIENTATION

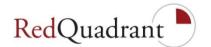
The fleas in the jar

Put fleas in a jar, and leave the lid on for a while. Eventually the fleas will learn that they cannot jump higher than the lid. Even when you remove the lid, they will not jump higher than the height of the lid so will not escape.

What does this mean for our work and daily life? What is the effect of perceived limitations and how does this limit our potential?

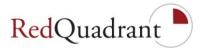
https://www.youtube.com/watch?v=TmhoSj3wkDM
(This is, by the way, a creative lie)

Who kills innovation? The jar, the fleas or both?



The fleas in the jar – implications: locked orientation

- 1. Organisational immune systems (to innovation/transformation)
- 2. The (in)ability to switch contexts. Meta-contextuality is how we get creative in the first place but we are so easily programmed (quite often intentionally) limit ourselves to a single context. If you are a 'flea in the jar', how do you know? You might be able to jump higher than you think.
- 3. If you are asking people who have been in the organisation for a long time to 'think out of the box' (or jar) it might be harder for them than you think. How do you help people in this place?
- 4. We don't see much we filter heavily, and we are intensely self-centred. See Weick's meaning-making, the whole human factors/safety field and accident investigations pilots in the fog not being able to sense that they are flying upside-down, for example http://goministries.net/upside-down-and-unaware/
- 5. Chuck Spinney, a close colleague of John 'OODA' Boyd's, coined the term 'incestuous amplification' to emphasize how this rapid intensification can produce self-locking tunnel vision. One might consider this as the strategic version of placing a microphone too close to a speaker.





Alasdair MacIntyre

CONTINGENT, AND COMPETING, MORAL RATIONALITIES

Interacting dependent rationalities

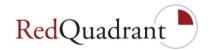
[To share a culture] is to share schemata which are at one and the same time constitutive of and normative for intelligible action by myself and are also means for my interpretations of the actions of others. My ability to understand what you are doing and my ability to act intelligibly (both to myself and to others) are one and the same ability.

Collingwood: 'progress is not a mere fact to be discovered by historical thinking: it is only through historical thinking that it comes about at all'

I can only answer the question 'What am I to do?' if I can answer the prior question 'Of which story or stories do I find myself a part?'.

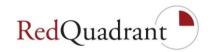
Particular texts do indeed characterize, refer to, stand in different types of relationships of correspondence to something beyond and outside themselves, but that something is always another text.

What would be required... for a conclusive termination of rational debate would be appeal to a standard or set of standards such that no adequately rational person could fail to acknowledge its authority. But such a standard or standards, since it would have to provide criteria for the rational acceptability or otherwise of any theoretical or conceptual scheme, would itself have to be formulable and defensible independently of any such scheme. But -- and it is here that contemporary academic practice breaks radically with its Enlightenment predecessors -- there can be no such standard; any standard adequate to discharge such functions will itself be embedded in, supported by, and articulated in terms of some set of theoretical and conceptual structures.



Estragon: 'I can't go on like this'

Vladimir: 'That's what you think'.



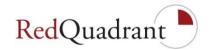


Nora Bateson

SYMMATHESY – A WORD IN PROGRESS

Symmathesy = learning together

- Symmathesy (Noun): An entity composed by contextual mutual learning through interaction. This process of interaction and mutual learning takes place in living entities at larger or smaller scales of symmathesy.
- Symmathesy (Verb): to interact within multiple variables to produce a mutual learning context.
- What is the difference between learning and life? None.
- When is something living NOT learning? Never.
- 'The context is not inside any of the parts but is created in the interaction.'
- 'The terminology we use to describe living things carries meta-meanings'





We are easily triggered into a way of 'being-in-context' by simple markers. Here are some ways of being and making meaning in context that regularly cause us problems in organisational life.

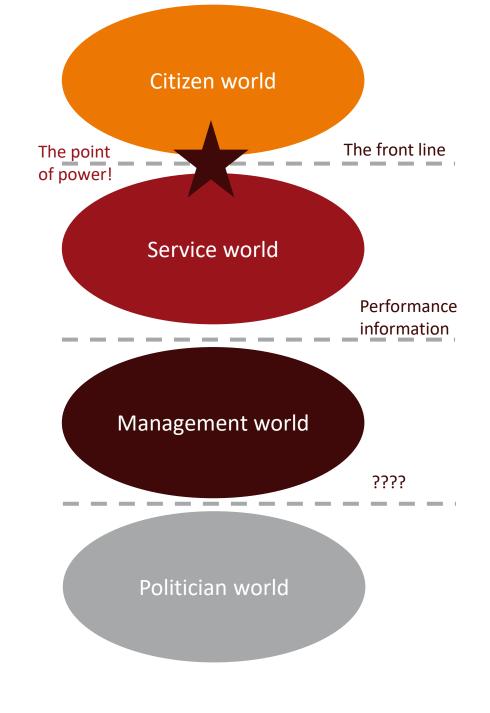
WORLDS AND CONTEXT MARKERS

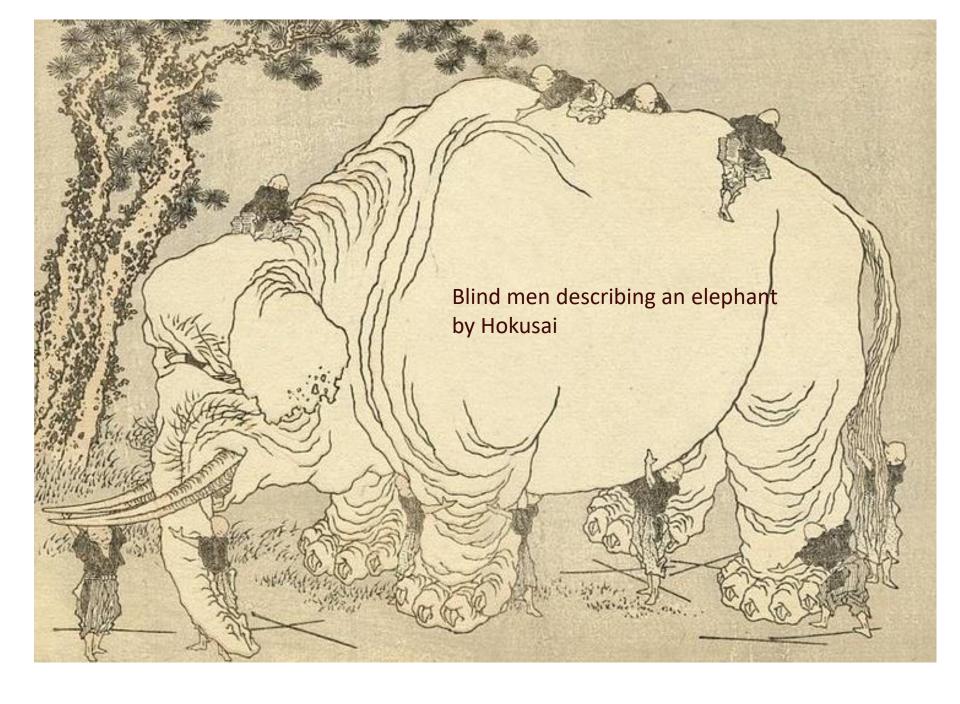
Four worlds

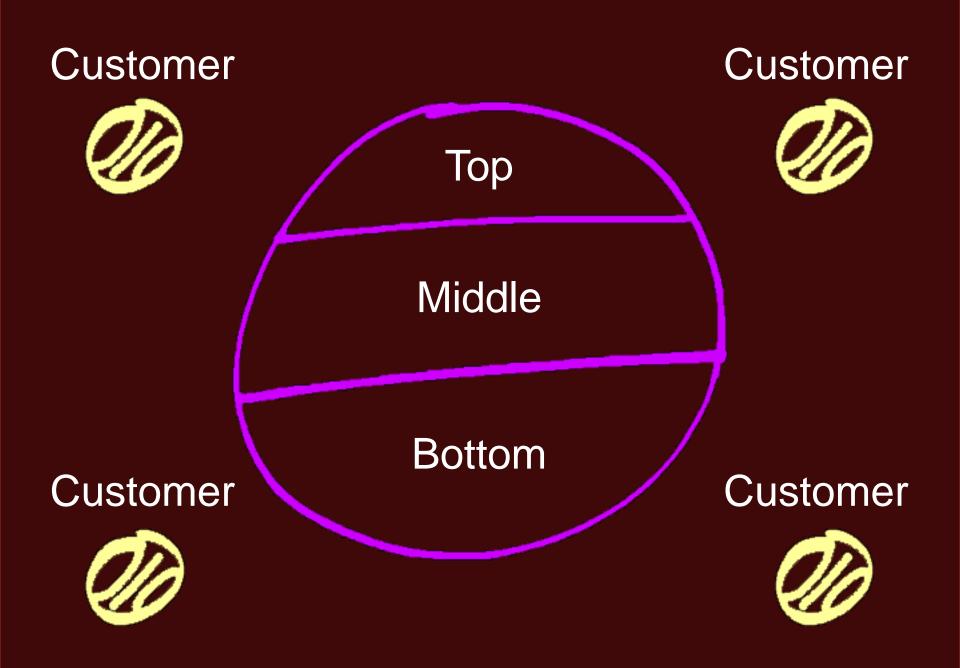
A traditional view:

- The 'citizen world' is separated from 'service world' by an invisible divide (we even call it the 'front line')
- This is further separated from 'management world' by another invisible divide – called 'performance management'
- In the citizen world, we do market research
- In the service world, we do BPR
- In management world, we do business planning, budgeting – and cuts
- In politician world...?

If we are to succeed – we have to link these four worlds!

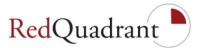






Worlds and context markers

- 'Worlds' are meaningful because they are self-contained, highly behaviour-driving contexts.
- 2. In Barry Oshry's elegant language, the conditions of the space are real, and they exist. And it becomes *immediately and inherently clear* what your appropriate reaction is what your job in that world is. And guess what? the instinctive reaction turns out to exacerbate both the conditions of the space (driving a positive feedback loop), and the interactions between the space or world and the other spaces or worlds (driving a positive feedback loop).
- 3. So staying in the language, context, and behaviours of the worlds is instinctive, and easy (and generates the kind of stories which give you social capital and the ability to drain energy from others). Changing behaviour and going against the tide of the world you are in is really hard.
- 4. Terry Pratchett's Amazon tree frogs
- 5. It doesn't take much to 'mark' a world: dogs bow to signal play

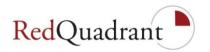


(Even though there's no territory and no maps)

Despite admitting verbally that a map is not the territory, rationalists hope that if they take one map, and keep updating it long enough, this map will asymptotically approach the territory. In other words, that in every moment, using one map is the right strategy. Meta-rationalists don't believe in the ability to update one map sufficiently (or perhaps just sufficiently quickly), and intentionally use different maps for different contexts. (Which of course does not prevent them from updating the individual maps.) As a side effect of this strategy, the meta-rationalist is always aware that the currently used map is just a map; one of many possible maps. The rationalist, having invested too much time and energy into updating one map, may find it emotionally too difficult to admit that the map does not fit the territory, when they encounter a new part of territory where the existing map fits poorly. Which means that on the emotional level, rationalists treat their one map as the territory.

Furthermore, meta-rationalists don't really believe that if you take one map and keep updating it long enough, you will necessarily asymptotically approach the territory. First, the incoming information is already interpreted by the map in use; second, the instructions for updating are themselves contained in the map. So it is quite possible that different maps, even after updating on tons of data from the territory, would still converge towards different attractors. And even if, hypothetically, given infinite computing power, they would converge towards the same place, it is still possible that they will not come sufficiently close during one human life, or that a sufficiently advanced map would fit into a human brain. Therefore, using multiple maps may be the optimal approach for a human. (Even if you choose 'the current scientific knowledge' as one of your starting maps.)

(Viliam, lesswrong)





WHAT ELSE?

Night driving



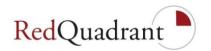
Can self-driving cars cope with British humour? (And balloons?)

Practice and 'the swampy lowlands' It gets messy in here!

How to be a better flea/frog?

- No compleat solution can be adequate to the complexity of the real world
- What is demanded of us is metacontextual thinking: seeing, and seeing beyond, context.
- Boyd called the ability to recognize and break out of locked orientation, Behendigkeit. Three ideas for you:
 - Recognize the danger if you nodded knowingly, think again
 - Put mechanisms in place to ensure an outside viewpoint.
 - Demonstrate that your mechanisms are working.

- Always be meta-contextual?
- Introduce noise
- Look at the white space between: the org chart, the connections between things
- Jump around organisations/edges
- Importance of art and humour
- Multiple perspectives, large group methods
- Test own lock-in
- Test own lock-in again, and again
- See the need for silos and specialisms
- Humility





Always happy to talk...

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