

Questioning Questions: Why Why?

What are questions and what makes a good question? An Essay in the Philosophy of Questions

FIRST DRAFT

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Introduction: Why Ask Why?

What makes questioning worthwhile? An answer to this can be found in how questions are practical to *you*.

Children ask tens to hundreds of questions a day [c,c,c].

Average yearly search results number in the trillions [c,c].

Questions are a fundamental part of the human cognitive and linguistic toolkit. I would question your humanity, if you were removed from your ability to inquire at all.

Curiosity-driven inquiry is an ancient and core skill, yet few know or have the awareness to improve their competency or skill when it comes to questioning. As I consider this to be strange and problematic – resolving this contention is what I set out to do in this paper.

Literature: What is Known About Questioning?

In contemporary social science, questions are typically studied from a pedagogical perspective in the field, but even in education has a diminished and misunderstood role [c]. In classical history, the Greeks did question the nature of logic, rhetoric and argumentation, but relegated questions themselves to a reduced role, a trend continued in modern 19th and 20th century empiricism, positivism and nihilism. The late Belgian philosopher Michel Meyer (1950-2022) created the first known questioning-based philosophy of ‘problematology’ in response to what he considered a ‘crisis in philosophy, science and rhetoric’ [c].

History: How Has Questioning Changed?

The most famous early method of employing questions fit for purpose is ‘Socratic Questioning’, described by Socrates’ student Plato in the *Dialogoi*, a practice primarily focusing on continual probing of responders with questions that gradually dismantle truth in their answers [c]. This technique served mostly as a slap in the face for his interlocutors – a critique of the inconsistency and incompleteness of their answers, alluding to the non-definitive and inexhaustible nature of answers and questions.

Plato’s own view focused on the answer as the ‘prominent element in philosophical discourse’ [c], as did Aristotle in his development of the scientific enterprise, although he at least recognised the dialectic use of questions rhetorically. Aristotelian logic tackled questions mostly in the examination of

definitions and categories, as suggested in his 4 universal question types, *to hoti, dioti, ei esti, ti esti* (That, Why, Whether and What it is), dealing with knowing, cause, existence, being [c,c]. A categorical approach naturally acted as the seeds of logic, from which the enterprise of answering grew to empiricism and flourished to modern science in the West, to dominate discourse since modernity.

According to Meyer [c], the only time where Western philosophy escaped from the immense weight of justificatory propositions was in the middle of the modern era, with Descartes' "*cogito ergo sum*" yielding an inherent question of the self, and Kant's recognition of the weakness of a pure reason. From the 19th century, interest in foundational inquiry was eroded through the combination of empiricism with formal mathematical logic in logical positivism, and the negative untargetability of nihilism, leading to Meyer's so-called philosophical and scientific crisis as a void in contemporary philosophy [c].

Perspectives: What is Scientific About Questioning?

From a language perspective, questions have been examined on various linguistic aspects across sound, structure and meaning, cross-linguistically [c,c]. Questions are typically categorised as expressive, polar and content questions, which respectively may demonstrate emotional content, have an opposing intonation or question particle, and alter position of wh-words [c,c]. Notably, Chomsky described syntactical rules for interrogatives in his transformational grammar in the 1950s, which has since been constructively expanded [c]. Overall, the linguistics of questions can and should be further expanded and integrated with the philosophical, psychological and social realms [c].

From a psychological perspective, curiosity serves to motivate obtaining knowledge [c]. The effect of questioning can range the spectrum between uncertainty and curiosity about the unknown, which can manifest as the emotions of frustration, pessimism, anxiety and stress to catharsis, confidence, exhilaration and confidence. Fundamentally, this effect differs from the intent of questions, as the difference of interpretant and interpreter [x].

Across the animal kingdom, it seems that a distinction can be made between primates and homo sapiens in our ability to question, as a part of accessing abstract and future-oriented language [c,c].

Sociologically, questions have been recognised as an important educational tool for authentic learning creativity in respect to the generative aspect of language [c], maintaining a fairly specialised niche in academia, with about 50 language learning papers between 1974 - 2015 [c]. Interest concentrates on ways to improve education from children to student's questioning perspectives [c] and the differences in teaching or tutoring styles of education [c].

Philosophy: What is the Best Way to Conceptualise Questions?

Although several scholars have tackled questions to some degree, arguably the most comprehensive philosophical examination was conducted by the late philosopher, Michel Meyer (1950-2022). His most complete work, '*De la Problématologie*' (1986) is based on the integration of several fundamental observations about questions into a unified framework:

1. Principle of Problematology: Question serves the 'fundamental and first instrument of reason', rather than propositions.
2. Apocritical: Describing that which solves and suppresses a question, as in an answer.
3. Problematical: Describing that which expresses a problem, as in a question.
4. Problematical Difference: The difference between the more closed Apocritical Answer and the more open-ended Problematical Answer in the same expression.

Language is understood as composed of a question and answer part, (the problematological and apocritical), and the difference between the two [c]. From these principles, Meyer reconciles that 'problems' have a positive value rather than being negatively 'problematic' in the sense of causing trouble – they help guide and frame better answers and better subsequent questions. His guiding light is that questioning serves 'the fundamental reality of the human mind, to which all other intellectual powers are connected' [c].

He also separates the natural from the social sciences as being apocritical and problematological; where a scientific answer is typically used to quell uncertainty in a natural science question, thus being apocritical, a social science answer does more to produce more natural further questions. Meyer goes on to explain the application of his theory in the domains of social science, emotions, rhetoric, contingency and meaning [x].

Lani Watson offers a more straight-forward but nevertheless compelling definition. Questions are an "*information-seeking act*" [c]. Watson claims that questioning acts as a form of intellectual virtue via inquisitiveness and that all intellectual virtues are in fact associated with the inquiry process, that also demonstrate virtues as attentiveness, intellectual autonomy, intellectual humility, intellectual courage and inquisitiveness [c]. Such virtues can be applied to inquiry-based practices in education, making the case that questioning is indeed a skill that has a range of competencies dependent on one's use of questions generally dependent on context [c].

Watson's crucial evidence base is a large online survey that focuses on what people consider is a question, thus expanding the definitional boundaries. A key insight from her research is that oftentimes questions don't require ending in a question mark [x].

THEORY: What is a Question?

In this section, I derive my own analytical framework of questioning and problematisation, following the inspiration of what I see to be the most significant questioning philosophers in contemporaneity, Meyer and Watson. I follow along their inspirations with further elaboration on a holistic perspective, virtuous competency and questioning in society [c,c]. My theory is unique from my assessment of the literature in the use of visual notations, expanded non-linguistic questioning mediums and attempts at blending the practical with the theoretical in this very paper.

The frameworks discussed in this section were derived from a systematic creative process to generate, then refine novel concepts, explained in **PRACTICE**. To be blunt, this process of theorycrafting is essentially making stuff up. To be more diplomatic, it is also creatively assembling ideas together into a testable, useful, cohesive framework – small ideas to a bigger set of connected ideas. These are the biggest takeaways:

1. Questions are a subset of a question space, which can be framed and set up by a prior question or answer with various constraints.
2. Questioners may contextualise questions by attributing them with various functions.
3. Questions are not only limited to verbal or written mediums and can be written in a condensed visual notation.

I focus on general, holistic principles – rather than siloed linguistic, psychology-minded, or philosophical views– that make use of current science, social science theory, artistic creativity and more formal philosophy. I've tried to put disparate things together and hopefully it makes sense.

Logic x Truth: What Are the Parts Of a Question?

How may questions be defined? A propositionalist philosophy or formal semantics may define a question as the origin of the set of all answers corresponding to the question. Questions are primarily defined as a way of eliciting information or correcting knowledge gaps [c,c], but have been assessed pragmatically to facilitate a broader range of functions in social situations – social lubrication, creative exploration, critical interpretation for instance [c].

Defining Questions and Answers

Bearing in mind these more varied uses, I propose an encompassing definition:

A question is an informational entity that generates functional possibilities.

In turn, an answer may be defined as a proposition that selects a functional probability. Answers can be said to naturally arise from questions and simultaneously cause their suppression [c], which leads to a fundamental contention: can answers exist without questions or vice-versa? Arguably, no and yes. This can be examined with the following principles and thought experiments:

- A. Question-Answer Superposition Principle: This assumes that a question is also an answer, and an answer a question – that they both possess characteristics of the other, but may be interpreted as either and thus are different sides of the same coin:

“How are you?” is obviously a question. It can also be interpreted as an answer to the situation of individuals meeting together.

“I am good, thanks.” can be an answer statement. It can also be interpreted as a question because a whole range of possibilities can occur after. This happens to be true for any entity that has a future conception.

- B. Questions Only Thought Experiment: Imagine a hypothetical world where everyone must always ask a question when communicating:

“How are you today sir?”

“Can’t you tell I’m quite happy today?”

“Are you happy because I am here?”

“What d’you think?”

“What, do you think that I can read your mind?”

“Well, did y’know I can read yer’ mind?”

“Oh really now?”

“You thinkin’ what I’m thinkin’?” ...

In this sense, each question can also be thought of as half an answer and question simultaneously, so it appears that a world with this interesting social norm could exist. I also think this is a fun language game to play.

- C. Embedded Questions: A statement is thought to possess inherent questions relating to each element. Every answer has many questions and questions answers. The more variables, the greater the possible variation:

“I’m good”: subject (I), time (am), quality (good).

Who is speaking? When are they speaking? What about the person who is speaking?

When shortening, you get, “Bird?” “Bird.” “Basket?” “Basket.” “Hello?” “Hello.”

Any part of a statement can be expressed as a question by attributing a question qualifier to it: “I have a dog” – “Do I have a dog?”

These three arguments provide some logical evidence to the idea that questions are unable to be divorced from answers and vice-versa. But how about the claim that questions should be able stand alone, but answers must be paired to questions? It is a fine claim, if the superposition principle and embedded questions arguments were disregarded – my intuition for if questions are a one-way street, is also a kind of one-way street that exacerbates the circularity questioning in a rather unproductive way akin to the imbalance on the analysis of propositions.

It is useful here still, to consider original definitions and distinguish statements versus answers:

Statement/Proposition: a definite expression.

Answer/Response: a reaction to stimulus.

However, in this framework, a statement is also an answer; therefore we can say that a Response/Statement/Proposition, which is an:

Answer, is a proposition as a reaction to stimulus that selects a functional probability.

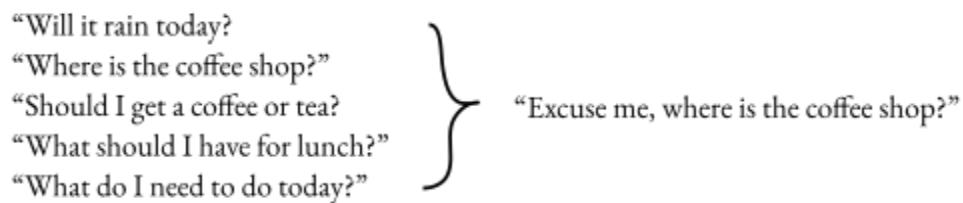
If answer and question ought to be conceptualised at the same time, it can be considered a ‘problem’, an entity that possesses both questions and answers.

Question–Answer Notation

This definitional criteria prioritises the duality between questions and answers, which will be helpful in further analysis of questions. To make better sense of this question-answer duality, I introduce the concept of the question space and a question/answer notation (QA Notation).

- ❖ Q = Question, A = Answer
- ❖ Q* = Questioner, A* = Answerer: the person/entity creating the QA or QA'
- ❖ Q' = Question Space: the set of hidden Qs from a usually implicit A
- ❖ A' = Answer Space: the set of potential As from a usually explicit Q

The concept of a QA Space, the potential question set from which a question is derived, is imaginatively visually useful, with the suppression argument that an answer can be thought to constrict, or temporarily dissolve an answer space. Before a question is asked, many ancillary questions may develop and fall away during the formation of the asking.



Hence, why the question space is described as hidden. Questions also usually have an implicit stimuli or answer – looking up at the sky, or getting lost along a new street. This follows from the popular observation that questions possess a kind of spontaneous quality and seem to materialise out of thin air in normal life.

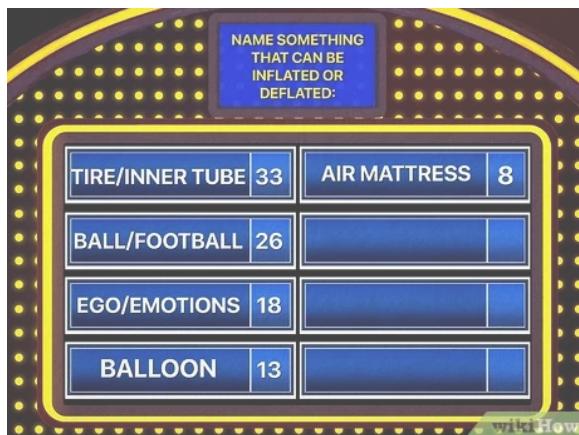
Similarly, the answer space represents the most relevant potential answers as a set from which an answer is chosen. Contrastingly, the answer space is usually much more explicitly prompted from a question as is normative in our cultural zeitgeist – asking multiple choice questions and the social cooperative norm that a reply is expected from a problem or inquiry. Here, I denote,

$$[Q^*Q' \rightarrow Q \rightarrow A^*A' \rightarrow A].$$

This statement may signify that a questioner begins with possible questions (Q^*Q') before they ask a question (Q), which is received by an answerer who naturally forms an answer space (A^*A') before providing an answer (A):

A student walks up to a professor with confusion from a lecture that has just finished and asks their most pressing question; the professor considers the question and while responding, attempts to simplify the concepts in a way the student can comprehend.

A key note here is that of course, QA spaces cannot be tangibly verified because they represent possibilities. They are individually unique to the interpreter at hand – but from this the average QA Space of numerous individuals can be determined that represents the shared, ‘scientific’ reality of the question space. This is practically impossible to ascertain and is useful insofar as individuals can apply it.



See what was trending in 2023 – Global

News	People	Passings
1 War in Israel and Gaza	1 Damar Hamlin	1 Matthew Perry
2 Titanic submarine	2 Jeremy Renner	2 Tina Turner
3 Turkey earthquake	3 Andrew Tate	3 Sinéad O'Connor
4 Hurricane Hilary	4 Kylian Mbappé	4 Ken Block
5 Hurricane Idalia	5 Travis Kelce	5 Jerry Springer

Actors	Athletes	Games
1 Jeremy Renner	1 Damar Hamlin	1 Hogwarts Legacy
2 Jenna Ortega	2 Kylian Mbappé	2 The Last of Us
3 市川 猿之助 (Ichikawa Ennosuke IV)	3 Travis Kelce	3 Connections
	4 Ja Morant	4 Battlegrounds Mobile India
	5 Harry Kane	

Family Feud board showing most common answers to a question and Google Trends in 2023 showing most common search queries. Sources: Wikihow Family Feud Questions, Google's Year in Search 2023.

The average QA' can be interpreted as the most common answers and questions in response to some prompt or stimuli. Fun examples of this include Family Feud, or Google's search results, which are

useful in applications concerning business marketing, or simply being one step ahead in addressing the most frequent concerns. This is distinct from the total QA' able to be generated from the same question, of which the average QA' is a subset of.

From this we can construct several foundational properties about the QA relationship:

1. QA Principle ($Q \Rightarrow A$): Qs follow As, As follow Qs.
 - a. Linguistically, this is untrue, as illustrated in the Questions Only thought experiment. Moreover, it is also common for conversations to be composed entirely of statements.
 - b. Pragmatically, it is a social expectation that any question is met with a response – to not answer a question that is evidently put to a particular individual can be construed as a complete faux pas, or cold and socially awkward. On the other hand, to not answer a statement is a normal occurrence, and the slightly more difficult question directed to nobody in a group often reflects on the questioner for lack of direction and observance to group norms.
 - c. Philosophically, this is true. As in the Questions Only thought experiment, each response to the previous question is in a way, a type of answer, sometimes the answer is explicit, other times implicit. In a Statements Only conversation, each statement can be interpreted as an answer to the implicit questions arising after each statement.
2. QA Superposition ($Q \otimes A$): Qs may act as As, As may act as Qs.
 - a. Explained by embedded questions/answers in the other and due to the QA Principle where questions are naturally answered, and answers questioned.
 - b. Transitional phase as the state between QA – where answers exist independently of questions as unquestioned answers, or alternatively, unanswered questions.
3. QA Difference ($Q - A$): a measure of the amount of leaps to connect the Q and A.
 - a. Linguistically represents the shortest amount of semantic conceptual leaps to connect the Q and A. Examples: small difference in “What’s your name?” “Angus”, large difference in, “I was quite the young upstart in 1987 Connecticut.”
 - b. This difference is most useful when considering open questions. “How are you feeling?” “I feel tired.” < “I feel like a sack of potatoes.” < “I am a sack of potatoes.” < “Today I harvested the crops, milked the cows and have now discovered that I am a sack of potatoes.” In an open question, any answer can be linked to the question – the key sense-making variable is the QA Difference.

Building on these basic principles, I then explore what I see to be their closest creative observations, and their subsequent actionable applications. I also propose ways to test for these properties and observations empirically in the [PRACTICE Experiment](#).

Question Concept Analysis

A. Parts of a Question: Mark, Space, Ground, Root

- a. Q Mark: Signifier that an answer is a question, e.g. Wh- words, grammatical particles, question mark symbol, rising intonation.
- b. Q Space: Indicator of the possible questions ask-able before a question, e.g. "Who are you?" - "Where did you come from?", "Why are you here?", "What are you holding?"
 - i. Generally, an average question space is most useful to conceptualise, as something akin to the most common questions attributable to a situation or answer.
- c. Q Ground: Fundamental defining minimal component of the question that elicits the main question space of the total question, e.g. "Who am I?" - the existence of I.
 - i. Q Root : Core question cause of an inquiry , e.g. "Do I look fat in this dress?", the root is, "Do I look okay?" but more importantly the root intention is probable to be insecurity.

B. Properties of a Question: Completeness, Symmetry, Uncertainty, Polarity

- a. QA Completeness: It is difficult to say whether a question is ever 'complete' or 'finished', except in the sense that the questioner has decided the end of it, but just as a sentence can be infinite in length by continually adding adjectives, adverbs, etc. a question shares this property.
 - i. Infinite Q: In theory, this implies that there exists an 'Infinite Question', that asks everything that is possible to be asked in the one question; that is, the answer space is infinite, or approaching infinity.
 - ii. Zero Q: Along the same vein, I hypothesise that there also exists a 'Zero Question', that does not ask anything at all; that is, the question space is zero.
 - iii. At the same time, we can apply the same idea to answers, such that an Infinite Answer: collapses all question spaces, or any subsequent question space is zero and a Zero Answer: does not generate or affect any question space at all.
- b. QA Symmetry ($Q^* \leftarrow Q \rightarrow A^*$): When a QA Space reflects onto both asker and responder, functionally affecting both. Symmetry can refer to the question knowledge possessed by both answerer and questioner; e.g. if I asked a toddler, "In what situations can question symmetry be exploited for epistemic growth?", this would be unengaging for one of us, but not for the other.

- c. QA Uncertainty (QA ?): Inability to interpret another's speech act as Q / A without intent, e.g. "I'm Home!" – can mean: "I'm home, anyone else here?", or that I am physically at home to the implicit question, "Where are you now?".
- d. QA Polarity: Related to the QA Difference, when there is a large difference, the QA bond can be said to be 'polar'. Most QA pairs should be nonpolar, with few exceptions.

C. Operations of Questions: Translation, Reflection, Rotation

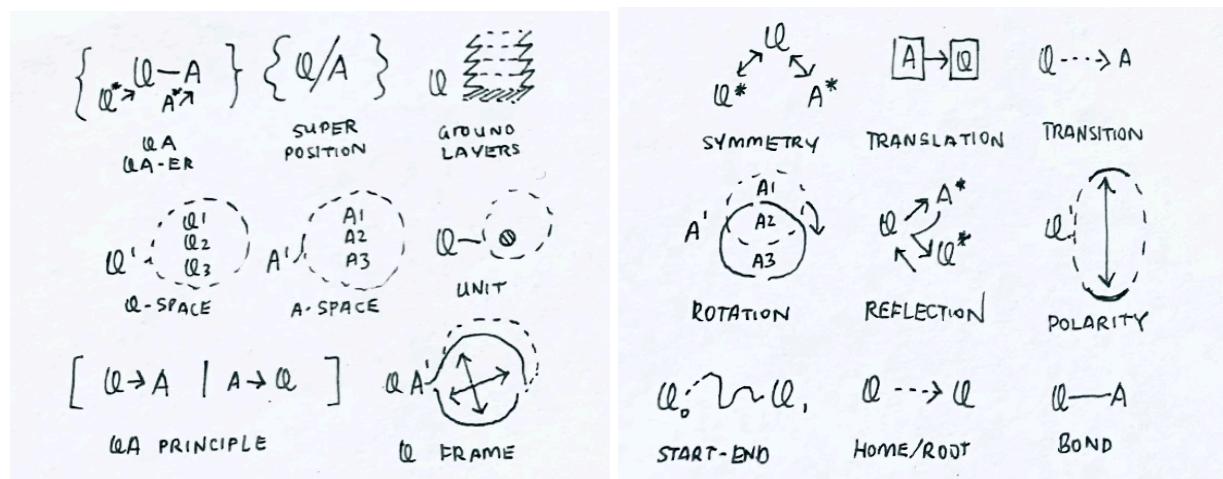
- a. Q Translation ($A \rightarrow Q$): Convert a propositional answer to a question with its question space or vice-versa, which can help elucidate the function behind questions or statements.

There is a dog behind you. → Is there a dog behind you?

What is your name? → I don't know what your name is.

- b. Q Rotation ($Q_A' \rightarrow Q_A''$): Transform an answer space to an adjacent space, which may involve manipulating question structure, e.g. Are you happy? → Are you satisfied? By rotating the answer space, the answerer is forced to compare the two definitions more carefully.
- c. Q Reflection ($Q \rightarrow A^* \rightarrow Q^*$): Asking the question back to the questioner, e.g. "So, are you happy?" "Well firstly, are YOU happy, interviewer?" A reflection of a question can serve as an act of mutual reciprocation or contest.

Here I seek to establish a further extension of a novel notation for questions, in the form of question diagrams – these are simply a more visually symbolic format of explaining a set of question relationships. Most importantly, a question space precedes each question, as does an answer space for answers.



Sketch of question diagrams and visual representation of questioning concepts, from logical principles, properties, operations.

Tying together all these concepts under the banner of ‘question logic’, we have introduced a variety of concepts to play with and explore for their use and verification and falsification.

Cognition x Function: How Do Questions Work?

The question-answer dynamic is made up of an interplay between the internal schemas of the mind with the external interpretation of stimuli. The variation of intention and effect creates a dynamic psychological interaction of questioning and answering:

1. Question structures can be learned and transferred, regardless of subject matter.
2. Questions show relativistic interpretation in individuals and cultural groups.
3. A diverse set of roles and functions vary the use of questions, not just in information-seeking.

Question Knowledge, Cognition and Intuition

What happens neurologically and cognitively as we are in the process of forming, asking, being prompted by, and answering a question? To explore this space comprehensively, much of what is known about cognitive science can be applied to questions, in learning, relativity, culture, intuition and function.

Curiosity is commonly defined as the ‘desire to know’ or ‘interest leading to inquiry’ [c] as the natural arousal of questioning. Neurologically, the resolution of curiosity activates and compels further learning with a dopamine response, suggesting information counts as a reward even if indirect [c,c]. However, this quality of curiosity can be reframed as the experience or state of generating a question space, not necessarily for the sake of purely information gathering, which would better demonstrate an abstract reward that is supported neurologically.

To ‘learn’ a question is to essentially become familiar with a set of question spaces, to develop neuronal links which allows more fluid and elaborative answers. Similarly, the concept of ‘transfer’ in cognitive psychology can be recontextualised as ‘question transfer’, the degree that a question space is mutable over variations of question subjects and delivery:

In helping readers with wayfinding at a local library, the question space I learn to answer is most related to giving directions at the library, but is likely transferable to answering questions about directions anywhere.

A near, or far question is a description of the question’s distance from one’s familiar learned question spaces, e.g. a far question is asking a xylophone percussionist about Myanmar foreign policy. Although, depending on the question structure, the xylophonist could still give a satisfying answer:

Qa: "What do you think about the way Mr President Dolittle handled the financial crisis?"

Qb: "What do you think about the way the guitarist in the band Realband handled their solo?"

A: "Oh, amazing. I wouldn't have done it any other way."

It doesn't matter what X is; the question can be answered in a similar way, whether the subject being discussed is about Aeolian chord progressions or bound tariffs. Effectively handling the question despite the content demonstrates a competence over question structures. Through practice and experience, the consolidation of familiarity and fluidity at generating any creative set of adequate responses in learned question spaces, distinguishes one with great 'question knowledge or experience' – someone with creatively effective responses to a large set of question types.

Congruently, 'question intuition' can be loosely defined as employing unconscious experience and understanding to question spaces. A high level of question intuition is associated with intuiting what are good questions and question spaces to explore according to specific contexts, relevancy and functions. This is an incredibly useful skill as questions inherently provoke creative reactions to the uncertain unknown, but selecting the overall parameters that yields the best answer or solution is what facilitates that in the first place, by asking the 'right question' [c].

Question Roles and Function

The primary purpose attributed to questions is to dissolve uncertainty or a knowledge gap [c,c,c]. However, questions are also used for social connection and conversational flow, or framed as a device to act on the world [c]. Frequently in a real-life situation, different levels of these functions combine together [c]. A deeper categorisation of functions examines the underlying psychological mechanism, which focuses on the cause rather than surface structure of questions, such as correcting knowledge, monitoring commonality, social coordination and interactional control [c].

Here I propose my own draft of a taxonomy for question functions applicable in English and based on the current literature, or the 'Five Question Cs': Connection, Clarity, Creativity, Criticality, Contemplation:

1. Connection: Small talk, relationship building, promoting interaction.
 - a. Small Talk: empathetic, building rapport; "How are you? How was your day?"
 - b. Interpretation: echo questions, rising declarative; "You mean you really did that?"
 - c. Interaction: facilitates, controls interaction; "Could you please open the door for me?"
2. Clarity: Gathering information, seeking answers
 - a. Probing: diagnostics, deeper information; "Could you tell me more about yourself?"
 - b. Information: elaborate definitions and thoughts; "What do you mean by that?"

- c. Scientific: testable hypotheses; “What will happen if I hold a big magnet in front of a car?”
3. Creativity: Decision-making, innovation, expressing curiosity or surprise.
- a. Open-Ended: multiple possible answers; “What do you think is life about?”
 - b. Imaginative: novel, never heard before; “What question are you wearing right now?”
 - c. Innovation: million dollar questions; “What can we do to have long-term world peace?”
4. Criticality: Critical thinking, problem-solving, adversarial motives.
- a. Criticality: seeking multiple perspectives; “What do scientists and artists think about this?”
 - b. Change: suggesting alternatives; “What other ways are there to do this?”
 - c. Leading: frames or traps responder with loaded question; “Do I look fat in this dress?”
5. Contemplation: Personal growth, self-reflection, transcendence.
- a. Transformative: resonating, transcendental; “Why are you alive?”
 - b. Reflection: only answerable by oneself; “How am I feeling right now?”
 - c. Trick: trick answer; “What drops first as a food truck with eggs & beans rounds a corner?”

These categories were primarily derived by the psychological drive and intention of the questioner, much like Graesser’s classification scheme outlined above [c] but with more pedagogical and self-questioning motives. In principle, question function can be extrapolated as any intent that comes through in the form of a question, whether strategic, bridging, confrontational, entertaining, or legacy-based, [c] which can be systematically derived from any model of motivation [c]. In turn, functions can be differentiated by social level:

1. Question Function: Questioner’s intent behind a question, e.g. to stimulate thought from, “What are the pros and cons about this?”
2. Question Role: Function or values behind a social structure or institution, e.g. questions that promote curiosity, criticality and thought in schools.

Constructively applying this framework, we can parse useful question properties:

1. Question Efficiency: Degree a question opens up a potential answer space that allows fulfilment of any question function, from the side of the questioner.

“How are you feeling?” is a more efficient question for empathic connection than “Are you okay?”

Answer Efficiency: degree an answer completes any function.

2. Question Effectiveness: Same as efficiency, but for the **intended** question function, not just any.

“How did you do that?” is a more effective question for the intention of clarity in a process than “Why did you do it that way?”.

Answer Effectiveness: degree an answer completes the intended question function.

3. Answer Error: significant deviation from an answer in fulfilling a question function or intention.

A key application of question efficiency, effectiveness and answer error, lies in unanswered questions. When a question is unanswered without any response at all, there is a clear answer error. When a question is dodged or a vague answer is given, this partially violates Grice’s maxim of quality and manner [c], in the nondisclosure of truth and clarity. What unanswered questions aren’t negative? Consider the following examples:

A politician gives a vague, general answer to a journalist’s question which has been framed to admit a lie, weakness or wrongdoing if they were to give a direct answer:

“Could you elaborate on your border policy and why you believe in aliens?”

Police pull over a citizen and ask if they’ve been speeding – they choose not to answer, or to answer with only a degree of cooperation, rather than risk criminalising themselves.

“Are you aware how fast you were driving?” [No response]

In general, it can be assumed that an Answer Error or failure to fulfil a question function is less preferable as a matter of social cooperation. Moreover, answers help reduce uncertainty, provide clarity and direction and various other good things [x]. Therefore, there are good ways to deal with these scenarios, in private to public settings. If somebody has misinterpreted a question and in fact, fulfilled a different function than the one intended, it is dependent on the questioner to firmly acknowledge the answer as well as providing their real question, and the person in error to acknowledge the actual question.

Question Relativity and Culture

People typically give different answers to the same open question. The relativity of questions points towards subjective differences of interpretation and response towards answer generation when prompted. This relativity is only useful insofar as a relative interpretation can be compared to a frame

of reference, or a ‘question source’. Apart from individual differences, questions are also interpreted differently based on linguistic cues, as described in tonal emphasis, wording and sentence order [c,c] and by definitional interpretations of questions.

Q: “What are your hobbies?”

Aa: “I enjoy swimming.”

Ab: “I attend knitting competitions for fun.”

Ac: “I just relax without any planned activities in my spare time.”

Answers Aa, Ab differ by individual difference, but Ab, Ac differ by definitional difference. A hobby can be defined primarily as an activity done for fun, and/or done during any spare time.

An idea of the average answer space gives clues to what the popular definition of a word is, regardless of what definition is written in a dictionary source, as per the principle of descriptive linguistics. This notion of relativity in questions interpretation and answer generation is relevant to better practice empathy and curiosity towards how others use their words – it can’t be assumed that everyone hears the same meaning nor reacts or speaks with the same meaning.

Furthermore, this relativity can be extended into various cultures of questioning and how different cultures and societies use and view the asking of and answering of questions. Considering two extreme hypothetical models:

A highly censorious dictatorship may refuse any and all questions that do not give some sway to the dictator, not just questions that may potentially undermine the leader.

A highly inquiry-focused educational environment may welcome any and every question, particularly those that critically build upon the process of learning itself.

The effect of questions can be defined as the observed effect and interpretation of a question.. In non-academic sources, there is a termed phenomenon called ‘instinctive elaboration’ that seeks to explain how questions can ‘hijack’ the brain to only focus on the subject of the question [c, c]. This is exaggerated at best but nevertheless a useful popular frame for the mental effect of question asking.

This can be extended emotionally as based around the spectrum between unforeseeable uncertainty and compelling curiosity about the unknown, which can manifest as the sentiments of frustration, pessimism, anxiety and stress to catharsis, confidence, exhilaration and confidence. Fundamentally, the question effect differs from the question intent, as the difference of interpretant and interpreter, and is worth examining further.

Q Magnetism: How much a question compels someone to respond. This is to be distinguished from just provocation, which can be done by an outlandish or shocking question or statement, e.g. “I’m going to kill myself.” Such magnetism is affected by urgency, authority, trust and

social factors, as much as the framing, “I speak as your trusted mayor of 40 years – should our community be put to rest?”

Q Transformativity: At every stage of life, there may exist a set of transformative questions that have the potential to reset the mental paradigms of one’s mind, resonantly unique to each individual, not dissimilar to the theory behind psychedelic drugs allowing their mind to process without inhibition.

Specifically, a question is, under rare circumstances, able to reframe one’s worldview much more than any statement or answer - as a unique type of question space is able to open up one’s sense of possibilities when previously there was a singular and rigid answer only.

Mediums x World: How Do Questions Differ?

The categorisation of questions by function as an underlying property is subordinate to the form of a question. In this section I discuss the concept of the ‘Question Medium’, expanding questions past the realm of language.

Non-Verbal Questioning Mediums

The verbal medium is the most recognisable and explicit form of questioning, which can also be written down symbolically. Written questions however, often present without any real question mark, particularly in the case of search results [c], such as “food places city Sydney”, although performing the primary function of a question, to seek information. This leads to tooltips and then to app icons, which also both are used to complete some further task, or ask the implicit question, “Do you need to use this app right now?”.

This is a slippery slope. At the extreme end lies the assertion that any material or matter can be interpreted additionally as a question, by having the ability to provoke creativity, contemplation, criticality, facilitate communication and clarity. If so, this expansion of definition is at risk of losing all meaning.

How should useful bounds be enforced?

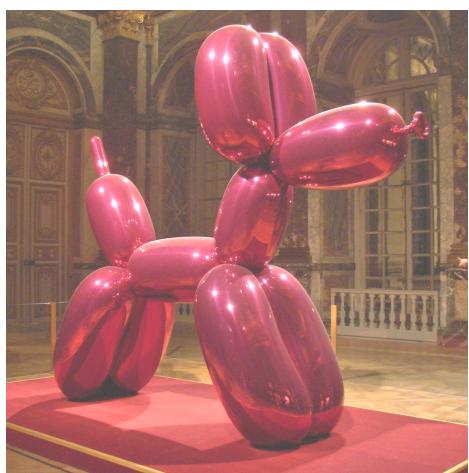
The most important distinction to make is between the spoken and ‘silent question’ that considers alternative sensory modalities:

- A. Verbal: Normal spoken question.
- B. Non-Verbal: Not based on spoken language content.
 - a. Suprasegmental: Voice intonation, word stress, vocalisations.
 - b. Written: Question presented in a symbolic script, alphabet, or words.

- c. Visual: A scene, diagram or picture, piece of art, design, video, sequence.
- d. Auditory: Musical phrases, melody.
- e. Tactile: Textures, movements, gestures, actions.
- f. Chemosensory: Tastes, smells, aromas.

In conceptual art, the idea of leading with a set of uniquely composed elements in a visual medium to first and foremost present a set of questioning ideas, rather than an aesthetic value, is the norm. Such art is deliberately designed to provoke a response in the viewer; art can be said to be ‘seeking information’ about the audience reaction. The artist behind the art may have either zero consideration for response – art created as a pure experience between artist and art – up to a carefully crafted function, usually to provoke surprising or novel lines of thought. For instance, the genre of ‘kitsch art’ that magnifies everyday materials and objects, such as Koons’ ‘Balloon Dog’, may present questions concerning commodification, usually prompting people to reflect on their own consumerism and relation to popular culture and their taste in regards to what is in vogue.

In music, the ‘question and answer’ directly refers to a compositional technique of a back-and-forth between phrases within a piece of music, mimicking a conversation. Music may have be more likely to induce an emotional response in listeners than any other medium [x]. Additionally, nonverbal gestures are extremely powerful mechanisms for asking questions – I bet you paused when you saw the questioning man below. A certain kind of look, or any kind of gesture that is directed towards someone can serve as an implicit invitation for a reaction, for example a hand wave. A chemosensory question is most relevant in the fields of fragrances and gastronomy.



Various questioning mediums that provoke responses – from left to right: Jeff Koons’ ‘Balloon Dog’ installation, ‘Question & Answer’ music sheet by Pat Metheny, man with a questioning gesture from Freepik.

Questioning mediums can be described by different properties that make them distinct besides the sensory modality used (visual, auditory, tactile) and the verbal versus non-verbal distinction. Often art

and written questions occur asynchronously – an artist may create an artwork, to be left in a gallery, with hundreds of visitors and eyes exploring the questions left by the art.

Moreover, the difference between question and answer is often more blurred in non-verbal mediums; it is much more common for say, a provocative painting to both act as a question to some and an opportunity for revelation for others. Reframing these questioning mediums in the language of the theory, there is less question polarity in non-verbal mediums.

The Questioning Landscape

This perspective is best viewed as a ‘Questioning Lens’, by way of moderation, useful to equip and peek through when faced with mainly a perspectival problem. This all-encompassing view signifies that there exists an essential element of questions, perhaps better framed in the lens of a ‘problem’, that pervades Everything. This questioning landscape of mediums means that any composition is able to be deconstructed and defined by the number and quality of questions in all mediums, especially the non-verbal. Or, that a conversation may be analysed by the type of question mediums that establish the context of the linguistic delivery.

A theoretical hypothesis following this ‘Landscape of Questions’ is that Q and A exist in a state of equilibrium transforming between another; as answers are had, new questions arise, as questions are asked, new answers are found [x].

But to finally cap off this section, I propose a rather large hypothesis:

QA Existence: All answer spaces and question spaces exist. That is, all questions that will ever be asked, ever, have the potential to be asked, right now. Same for answers.

This Principle of Question/Answer Existence is profound because it suggests that 200 million year old ancestors on the African continent, could have come up with Newton’s Laws, the theory of evolution, and invented penicillin, if they had followed a very specific line of questioning and answering.

What this extrapolates to, is that in our current age, we are capable of uncovering highly novel, advanced theories and innovations, but we lack the definitively obtainable imagination, set of extremely precise tools, or the immense odds to achieve our visions.

PRACTICE: How Do I Question Better?

A browser search for the ‘Art of Asking the Right Questions’ yields no less than 10 TEDx talks on that exact topic and title from the past 10 years [c]. They primarily deal with the art of asking the right or better questions, testifying that this is the most common and popular angle for questioning.

The practicality of questions is undeniable. Questions can be compared as a major subset of language as a practical tool used explicitly in everyday life. If employing the concept of a question space, questions are inescapably intertwined with living, whether as words, gestures and body language, or designs and objects. This section explores methods and techniques to question in a way that is more effective, considering context from both the questioner and answerer and the form and composition of the questioning.

Competence: What Makes a Good Question?

Firstly, Graesser and colleagues used criteria centered around information seeking [c,c], essentially the ability to match the evoked Answer Space from a question to the desired knowledge gap, and ‘deep questions’ using why, how and what if questions. Watson focused on pragmatic context in addition to the informational content of questions, rating competency as one who, “asks the right questions, of the right information source(s), at the right time and place” [c].

Good Question Criteria

We can do better, based on the theory established regarding question functions, logic and medium. We’ll first lay out a systematic framework for evaluating the criteria of a good question. Then we’ll translate it to answers, making any necessary adjustments and integrating the dual views.

1. Question Function: Asking with well-formed intentions, with consideration to the desired generality or specificity of the aim(s).
2. Question Effectiveness: Asking the right question that invokes an average or personalised answer space that most likely fulfills one’s question function.
 - a. Creativity: a good question is often playful, novel and open-ended; when the responder has genuinely not heard of the question before, or has not given a question the time of day yet, and is perfectly situated to experience curiosity and openness in the moment to explore an open, yet curated answer space through an authentically curious and generative mode of being.
 - b. Clarity: a good question is unassuming and curious, with a warm demeanour; the questioner carves out the answer space to allow the answerer to empathise with a less clear, earlier version of themselves or to be curious about the knowledge state of the questioner.
 - c. Criticality: a good question is expansively analytical, non-judgemental and not too disagreeable; it inverts or expands the question space to allow the answerer to safely explore adjacent answer spaces. It requires psychological or informational safety for authentic exploration and answering.

- d. Connection: a good question is warm, facilitating better connections between communicating parties, it allows authentic curiosity to foster genuine connection.
- e. Contemplation: a good question is transformative, reflective and slow; the askance of the question requires pauses and time, for the question to sink in, and for the answerer to deeply explore the profound and interconnected answer space generated by a contemplative question.

“How?” is more effective for the intention of clarity in a process than “Why?”

3. Question Role: Matching the social context and the mind, experience and state of others. Emphasising not only question content, but context and who asks the questions [c], using the relational frame to prioritise relational connection by continually shifting positions in who asks.

Asking a question that seeks clarity on a concept in a classroom, such as “Why are weeds considered invasive species?” in an ecology class, versus “Cen Aye go smoke sum weed righ’ now?”

“What are your recent concerns?”, “What are you most unsure about at the moment?”

Asking a relevant, fairly knowledgeable question on a public panel, not a hyper specific question.

4. Question Ethics: Asking without creating any egregious ethical concern surrounding:

- a. Harmful Effect from reckless questioning. Question in a controlled manner without being overly restrictive.
- b. Malicious Intent from manipulative questioning. Question to influence with responsibility and without apathy.
- c. Dangerous Ideas from unwise questioning. Question with creativity bounded by heed to consequence.

To avoid breaching these unwanted ethics, from the side of the questioner, one ought to maintain a healthy self-awareness of their question usage between the extremes outlined. A central ethic surrounds the duality of questions and answers. Ensure a considered weighting between questioning and answering [x].

5. Question Efficiency: Asking a question composed concisely and to the point for the function.

“Where’s the money?” rather than, “I am trying to rob you at the moment so excuse me, but I am wondering where you have hidden a certain precious stash that I am in need of right now?”

In sum, a good question curates a certain kind of answer space that allows the most fulfilling and authentic response for the question function and social context, able to be understood by the receiver without causing severe consequences. Additionally, we've noted that a good question facilitates, stimulates and guides a good answer.

Therefore, a good question is tuned to the function of both the questioner and answerer, and the wider social and ethical context. Additionally, in relating to the question and answer space, both should be authentically and effectively integrative of their respective spaces. For instance, if several vague questions were thought of, a good question combines and makes sense of the most important one in an integrative manner. From here, it might help to create idealised character archetypes of what makes 'Question or Answer Masters' with advanced, proficient approaches to questioning and answering.

Master Questioner Characteristics: highly empathetic and observant, deeply curious and interested, the kind of person who is very close to reading others' minds in terms of their values, worldview, psyche.

- ❖ Intentional Inquiry: Considers hierarchy of aims before questioning, identifying core purpose and creating effective questions with.
- ❖ Quality Questioning: Able to ask creative, generative questions that open up the answer spaces that yield the best potential for good answers, corresponding to the desired purpose.
- ❖ Social Savvy: Can judge the kind of answers certain types of people will give by being observant and can read the room and adapt questions accordingly.
- ❖ Considerate Curiosity: Manages an effective equilibrium between introducing novel paradigms and being considerate of consequences to an appropriate degree.
- ❖ Artful Articulation: Craft perfectly concise questions fit for purposes, with minimal misinterpretation.
- ❖ Side Skills: Visionary, to know what to look for. Warm, to allow answerers to open up and give the best answer they can. Empathetic, to understand people's internal world. Temperate, to allow balance and self-regulation. Conscientious, to continually mature their questioning skill.

I have not really touched on answers, as is not the focus of this paper, but general properties of answers can be seen as mirrors of questions – this and an archetype of a 'Master Answerer' is included in the Notes PRACTICE section. I discuss specific examples of professions that facilitate the training of good questioning technique in Disciplines.

Question Extensions

This subsection extends question competency by presenting novel techniques and ways to frame the production of better questions. Firstly, I introduce an additional class of questions based on their properties *in relation to other questions*, or the question frame of reference. The reason this is not under THEORY is their complexity.

Relations of Questions: Positive/Negative, Parallel, Perpendicular, Partition, Inverted

- a. Positive/Negative Q: Expands or restricts the A Space of a previous question. These questions can be adeptly employed either to narrow down towards clarity of understanding, or to widen towards a more creative and exploratory sense for acquiring information.

Are you happy? Are you elated? How are you feeling? – Positive questions build-up.

What? What is that thing? The...small creature nibbling on the apple? – Negative stacking.

- b. Parallel Q: Similar in content to the previous question, but different in function, performing a Q Rotation that allows both parties to switch gears and approach a close but different A Space. This doesn't necessarily dodge the original question entirely yet also allows space, which may be helpful as a social lubricant, if one is having difficulty answering a particular question or is cautious or wary of the questioner's intentions.

Are you happy? No, I mean, how are you today? – moving from a contemplative function to a connective function. Similar content inquiring about internal state.

- c. Perpendicular Q: Sibling of the Parallel Q, similar in function to the previous question, but different in content. Perpendicular questions create an opening to a relatively distinct A Space while implying a plausible connection between those spaces. This is useful when exploring possible truthful relationships with tact.

Are you happy? How is family life nowadays? – moving from emotional content, to relational content.

- d. Partition Q: Adds specificity to another question via negative questions. Partition questions often have the function to divide up an initial answer space into more parts, to introduce more nuance and complexity to the subsequent answer, which can help with clarity of understanding.

Are you happy? How about, are you content? Or are you satisfied? – implying close relations between concepts, such as satisfaction and contentment as subsets of happiness.

- e. Inverted Q: Appears opposite in meaning to another question. Inverted questions span the answer space, indicating that the questioner is not making any assumptions about the answer, allowing the A Space to be more comprehensive.

Are you happy? Or are you sad? – moving to oppositional spectrums.

Is it okay if you left me alone for a moment? But before that, could you help me? – creating moderated conflict and assistance.

These relational question techniques are used as extensions of existing question spaces.

We can develop advanced questioning techniques that aim for a weighted moderation across multiple domains, asking essentially for a wisely holistic perspective from the answerer.

- A. Multi-Functional Q: Possesses a combination of functions, enabling more layered Answer Spaces. Depending on the functions, can encourage more in-depth thinking.

“What are the consequences for a future society dependent on answers?” – Critical & Creative.

“Is that a German Shepherd?” – Clarity and Connection.

“So perhaps what you’re implying is, you sometimes feel lost?” – Clarity & Contemplation

It may be easier to deal with split questions; combining functions into one question is just a matter of proficiency. Synergistic combinations:

Creative x Critical, Creative x Contemplation

Critical x Clarity, Critical x Contemplation

Clarity x Connection, Clarity x Contemplation

- B. Multi-Modal Q: Creates an answer space that spans across several mediums of answering.

“What kind of language did you see and hear from them?” – Hearing and seeing.

“Could you tell me how you are feeling across your five senses?” – Explicit multisensory.

- C. Metaphorical Q: Using metaphors in questions combines the subject of the question with a familiar concept, opening up more creative avenues for thought.

“How do you navigate life, as captain of your ship?” – Life with ship metaphor.

The average person can do much to improve their questioning competency. The reality is like all self-help advice: start early, continue, and don’t stop. Graesser and colleagues called for researchers to

develop a "Question-Authoring Workbench" [c] as a tool by teaching theory, giving examples and guiding the creation of better questions. Here I propose a simple but comprehensive step-by-step approach to improving questions:

1. Map out the key approaches.
 - a. Medium: Choose the medium wisely, as the medium is the message [c].
 - b. Function: Get clear on the purpose of the questioning.
2. Take a moment to consider options before questioning.
 - a. Apply a criteria, such as listed above: function, effectivity, role, ethics, efficiency.
3. Laying out the different options, test the questions under varying circumstances.
4. Evaluate and adjust the questioning under the criteria.
 - a. Function: Change function, decrease or increase specificity of aim.
 - b. Effectivity: Adjust semantic elements and structure of the question.
 - c. Role: Incorporate stronger references to parties present.
 - d. Ethics: Create balance within the question.
 - e. Efficiency: Cut down wording, how the question is conveyed through tone.

Advanced: to develop an authentically effective questioning style, including applying one's own code of ethics to their questioning.

Question Techniques

Frequently Asked Questions (FAQ) are an example of a useful preventative tool for creating the average person's question space for a particular product or service. By implementing a high range and quantity of questions within an FAQ, a large span of the average question space can be obtained.

Considering the answerer, every individual is influenced by factors such as their ethical principles and relation to external environment and the pragmatics of the social circumstance. However, most importantly, they also possess elements of bias and subjectivity that interact with their Answer Spaces.

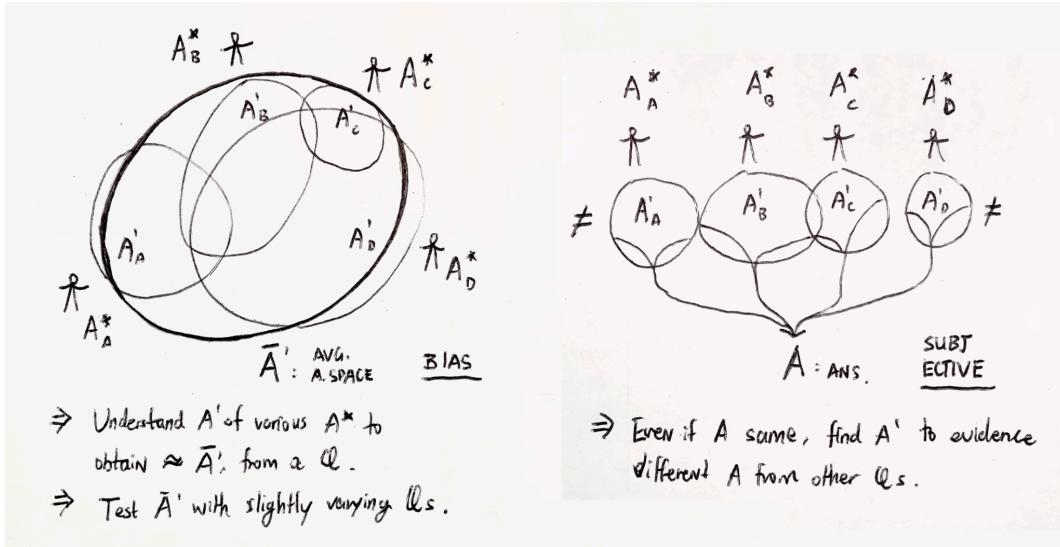


Diagram of the effects of answerer bias, that fits over the average answer space of a question and answerer subjectivity, that despite different answer spaces generated, can form the same answer.

On the flip side, Frequently Responded Answers (FRAs) against FAQs, can give people a sense of security or comfort from the perspective of those in leadership positions. Although there may be some differences, questions and answers are two sides of the same coin. An FAQ inevitably includes answers to those most common questions, but those answers may not be the most common.

Here I also propose a corollary to multiple choice questions (MCQs). Multiple Question Answers (MQAs) are a way to strengthen and refine one's sense of what makes a good question. For example,

MQA 1) Select the most persuasive question.

- a. Could you please do the laundry?
- b. Could you do the laundry?
- c. Could you do the laundry sometime?
- d. Have you forgotten to do the laundry?

MQA 2) Select the most creative question.

- a. What ways could I use this cardboard box?
- b. How can I use this cardboard box?
- c. What can be done with this cardboard box?
- d. Why is this cardboard box shaped like it is?

MQA 3) Select the nonverbal question which gives the most efficient and effective response.

- i. (Shrug your shoulders with a frown.)
- ii. (Widen your eyes and look at them slightly sideways with palms loosely outstretched.)

- iii. (Narrow your eyes and purse your lips at them.)
- iv. (Tilt your chin up in their direction for a few seconds.)

Although it is arguable that there is no definitively ‘correct’ question, certain questions can be reasonably justified to be better than others. Regarding Wh-Questions:

1. ‘What’ is the quintessential question, potentially encompassing who, where, when and how, serving as the broadest categorical prompt, and focuses on the present state.
2. ‘Why’ approaches motives and asks for elaborations, but if the what is uncommon enough, it would encourage an implicit why question and answer and emphasise before state or cause, usually difficult to pinpoint.

The essence of ‘Wh-’ questions is that they serve as a question mark related to a general entity. Therefore, it is simple to create other ‘Wh-’s, such as Wh-Sense – What do you sense? Wh-Feel – What do you feel?

Reflecting back on the question concepts outlined in THEORY: Logic, we can also derive applications:

1. QA Principle: If seeking an answer, ask a question.
2. QA Superposition: If you’re feeling overwhelmed, translate a question into an answer. If you’re feeling lost on ideas, translate an answer into a question.
3. QA Difference: When confronted with a confusing or unclear answer, interpret it with good faith as a polar QA bond, and attempt to both tie relevance to the question and seek clarification.
4. QA Symmetry: When tackling a problem in a group, identify and ask the most symmetric questions that affect everyone as equally as possible, to motivate mutual action.

Disciplines: How Does Questioning Differ in Disciplines?

The greatest gift in studying questioning is how it can improve the individual. The greatest project of questioning is how it can improve society. Questions are used by everyone and present in every area of life, as illustrated by the Question Landscape. This forms the set of questions in each discipline, which can be examined in a systematic manner.

Questioning Professions

In society, there are several professions that implicitly and explicitly promote good questioning. These questioners are seen in formal occupations such as:

1. Journalists/Investigators: Eliciting objective truth in obscured settings with probing.

2. Interviewers/Podcasters: Obtain information from people and nurture conversation.
3. Hosts/Managers: Enhance comfortability, facilitate group dynamics.

Here I briefly explore 3 case studies of various online public podcasters/hosts:

1. Yoo Jae-suk (유재석), the ‘MC of South Korea’ with the ‘(뜯뜯) DdeunDdeun Show’, among others, is a great example of questioning in East Asian contexts, where quantity of questions can be seen as overly interrogative, and asking too deep of a question may be too prying – so that questions are primarily used as a social lubricant to enable common topics of conversation. But primarily Jae-suk’s approach can be seen to focus on being the quintessential host, making the guests feel comfortable and quickly eliminating any discomforts that may arise with tact, by asking often simple, familiar and universal questions [c].
2. On the other hand, Anas Bukhash (أنس بوخش) of the show AB Talks, focuses on revealing depth beneath answers. Every episode begins the same, with “How are you *really* doing? (كيف حالك حقاً?)”, with emphasis on the ‘really’, as a way of immediately setting the tone of digging deep beneath the surface interpretation of each question and enabling the environment to be psychologically safe to break the shell. Often, the questions require genuine deep thought before an answer is arrived at by the guest and rather than discomfort, this is seen as part of the course. This unique and almost ritualistic environment is what enables incredible personal depth to be surfaced [c].
3. Perhaps familiar to English-speaking audiences, Sean Evans of the ‘Hot Ones’ Show is a talk-show host who focuses on increasingly deep questions that build up the profile of the guest, while they eat increasingly spicier chicken wings, paralleling the ramping up of pain and catharsis. His questions are typically well-researched and novel, incorporating some element of surprise, inversion, emotions, extremes and comparisons, e.g. asking about what a literary reference means to a musician, which a small bit was included in their song; or uncommon emotional circumstance such as sympathy in a fight [c].

When asking interesting questions to unique answerers, such as celebrities, it is good form to ask for personal questions relating to their perspectives, rather than objective information askable from other sources. To contrast, the realm of scientific research is about narrowing down onto an understanding of some shared objective reality. It is a skill to have the capability to convert useable question and answer knowledge between such conceptions of reality:

“What do you think about the US elections?” [Subjective Answer]

“What is the consensus about US elections?” [Collation of good sample of subjective answers]

Social Science Disciplines

From individuals, we can then explore the impact of questioning by examining their use in the primary social institutions, and extrapolate towards extremes of questioning in order to understand how they may improve by finding a middle ground, for instance, a question-based education system curriculum, rigorous question-based scientific process, question-based entrepreneurship, are common examples of questions used for creativity, learning and innovation.

1. Education: Guiding others towards improvement and to help them.
2. Arts: Creative questioning to synthesise new ideas for artists/writers.
3. Allied Health: Open, empathetic and diagnostic questions in psychology, therapy, medicine.
4. Religion: Asking the religious authorities/scriptures.
5. Business: Seeking sources of innovation and business optimisations.
6. Law: Discerning clarity on laws and interpretations.
7. Politics: Mediation and the general lack of public questioning for the appearance of leadership.

Education often involves the process of guiding students by asking questions where the answers are already known, in order to train their expertise in possession of the answers. A lot of contemporary mass-education solutions end up overemphasising standards of examinations that present questions that over the long-term, psychologically frame questions (or problems) as adversarial, rather than productive, useful, or good, which leads to many graduates having negative reactions to being asked questions they don't know the answer to, or a gradual inability to ask questions out of their own curiosity themselves. A question-based education or inquiry process or system may try to start off each learning interaction with a question [c]. Or every day, coming up with a resonant question to think about for a good few minutes.

It is arguable that the ratio of questioning to answering should decrease with experience and knowledge, , but is there a case for adults having even more questions to ask?

As every adult possesses a significant body of knowledge already with each knowledge node having a question in itself, an adult should be perfectly capable of formulating significantly more creative combinations of questions than children as per the cliche, ‘the more you know, the more you don’t know’. However, it is considered unprofessional to ask questions, unless it’s your profession to ask questions. This is why I choose to be a professional adult child to make use of my knowledge for greater creativity. Someone who doesn’t ask any questions is indifferent and uninteresting; someone who asks too many questions may be too probing and troubling.

Interestingly, in a political and sociological organisational context, there has never been a societal or group norm that has primarily focused on questions. The closest entities are democracy and freedom of speech. A big criticism for hard freedom of speech is that it doesn’t disallow threats, defamation,

libel or slander, plagiarism and obscene material in the US First Amendment, which can lead to verbal abuse, disinformation, radicalisation, polarisation. Questions on the other hand only implicitly provoke and can be considered less provocative than stated opinions or facts but can also lead to more long-term and voluntary persuasion.

Questions in contemporary psychological counselling contexts are primarily used to set up rapport and initial dialogue between parties, before functioning as a lever for the patient to open up voluntarily. From this, the therapist and client is able to discuss and deal with the issues in the open. Rarely, certain questions may have a transformative effect of completely opening up a rigid train of thought – to be paradigm-breaking for the individual stuck on some mental blockade.

Natural Science Disciplines / Philosophy [x]

Asking questions outside of one's knowledge can serve as powerful motivators for intellectual growth. [x]

Experiment: How Are Questions Studied?

The study of questioning, has significant potential for its abstract and wide-ranging, yet practical nature. This undeniable quality signifies both the difficulty in wrangling clear-cut definitions and standardisations for the field amidst the ubiquity of questioning data to be studied in everyday life.

Questioning in Research and Philosophy

A common refrain in problem solving is that identifying the correct problem is more important than finding a solution. What this indicates is the generation of a well-defined answer space, from which the best answer has the highest probability and greatest efficiency of being discovered. In contrast, it is also a common mistake to spend time optimising a solution to the wrong problem that never needed to be solved in the first place.

Research is the exploration into the intellectual unknown, and clearly makes use of deliberately targeted questions as scientific and philosophical inquiry. It is acknowledged that “there is no universal set of criteria for a good research question” [c,c], however there are still general guidelines, such as FINERMAPS (Feasible, Interesting, Novel, Ethical, Relevant, Manageable, Appropriate, Potential Value & publishability, Systematic) [c,c] or PICO(T) for the context of clinical applications (Population, Intervention, Comparison or Control, Outcome, Time Period) as well as various other acronyms [c].

I will use this subsection to disagree and offer one such universal set of criteria for a good ‘research’ question. In order to do so systematically, I will redefine the enterprise of research as the business of

developing novel answers to philosophical questions. This should be separated from the enterprise of philosophy as developing novel questions to scientific answers.

1. Science: Creating novel and effective answers to any objective questions.
 - a. Natural Science: Hard, falsifiable, reliable evidence.
 - b. Social Science: Soft, consistent observations.
 - c. Arts / Humanities: Authentic, perspectival, impactful expressions.
2. Philosophy: Creating novel and effective questions to any objective answers.
 - a. Natural Science: Defined, systematic, pursuits.
 - b. Social Science: Deep, framed questions.
 - c. Arts / Humanities: Authentic, perspectival, impactful expressions. [x]

Theorycrafting: How I Wrote This Document

Here I explain the meta-process behind making this document, from the generation of the outline of theoretical elements, to the research, drawing and writing.

The process was based on 3 intuitive assumptions:

1. In a question space, in this case, the entire novel field of questions, potential answers and questions are initially given equal weight → This leads to using systematic, exhaustive models.
2. An author may rely on their personhood and intuition, a mental guide based on the sum of their knowledge and experiences, to impose a novel set of priorities onto this problem space → This leads to a manageable, ranked exploration.
3. Significance interpreted from a work is based on trust in the questioning agency of the author(s), who may be any individual, group, or entity → This leads to the relevancy of a social science or humanities theory based primarily on the author(s).

The systematic process for deriving this document was based on the objectives to create a **theory**, *practice* and hypotheses.

1. Concept Variation: Create variations of a question type (**theory**) and question device (*practice*)
 - a. X Question, e.g. deep question, dynamic question, draft question
 - b. Question X, e.g. question anxiety, question anatomy, question arena
2. Concept Ranking: Rank and/or categorise all variations according to intuition of significance, i.e.
 - a. S Tier: Type, Structure, Function
 - b. Properties: Grounded, Floating, Transformative, Harmonious...
3. List Variation: Repeat concept variation and ranking for other list types:

- a. Intuitive List: Concept variation based on 50+ variations of a question type (**theory**) and question device (*practice*), in the form ‘X Question’ and ‘Question X’.
 - b. Systematic List: Concept variations based on 20 primary intellectual domains using the same kind of concept forms.
 - c. Generated List: Use generative artificial intelligence to create a list prompted similarly.
4. Combine all concept rankings for all 3 lists.
 5. Theorise and investigate the concepts in order of ranking.

The final step was the most traditional, in the sense that it mainly just involved sketching out what these concepts might mean, and writing. Over time, as per the writing process, I cut out, extended and looped concepts together to eventuate the concepts finalised here. This also allowed me to have the grace to stop myself before I took certain concepts too far by adhering to the prioritisation rankings initially established.

It is also unclear what has the best potential to contribute the most to a good, novel theory, practice and hypotheses.

Overall, three lists were made: my intuitive list (A), my systematic list (B) and a generated list (C). The first list I created was an intuitive list of 100+ variations of question concepts; first about 50 in the form ‘X Question’, then about 50 as ‘Question X’, grouping them somewhat as I progressed. This type of list represents the most common kind of informal research, that is unsystematic, and just guided by one’s sense of curiosity and experience.

1. next, post question - original, pre question
2. unanswered question - answered question
3. draft question - edited question
4. questioned question
5. epistemic, known question - unknown question
6. symmetric question - asymmetric question
7. true question - false question
8. deep, resonating, transformative question - shallow
9. risky, unsafe question - safe, routine, familiar
10. collective question - individual question
11. hard question - soft question
12. grounding question - floating question
13. fluid, dynamic question - static question
14. unstable question - stable question
15. childish question
16. foundation question
17. kill question - healing question
18. stupid, dumb, naive question - smart, advanced
19. good question - bad, terrible question
20. healthy question - unhealthy question
21. repeated question
22. complex question - simple question
23. coherent question - incoherent question
24. written, linguistic question
25. artistic, creative, imaginative question

51. numbers question — word question
52. boundary, edge, fringe question
53. timed question — spaced question
54. marked question — unmarked question
55. pilot question
56. reflexive question
57. question stacking, sequence, series
58. question gauntlet, arena challenge
59. question type, category, typology, class
60. question set
61. question structure, anatomy
62. question character, property, emotion
63. question medium
64. question health
65. question lifecycle
66. question role, function, physiology
67. question transmutation, transformation
68. question interaction, dynamics
69. question ecology, network
70. question application, effect
71. question efficiency, effectivity
72. question heat, temperature
73. question chord, melody, rhythm, pace
74. question timeline, development
75. question map, compass

26. far question - near question
27. open question - closed question
28. generative question - destructive, suppressive
29. spicy question - thirsty question
30. old, ancient question - new, novel question
31. traditional question - future question
32. identical, similar question - different question
33. popular question - taboo question
34. dependent question - independent question
35. positive question - negative question
36. extremal, absurd question - equilibrium, average
37. inverted question - parallel, perpendicular
38. transitory question
39. analogical, metaphorical question
40. root, home question
41. zero question - complete question
42. joining question
43. beautiful, aesthetic, interesting question
44. learning question - learned question
45. step, journey, path question - destination
46. light question - heavy, dark question
47. informational question
48. long question - short question
49. locational question - remote question
50. sink question - float, source question

76. question device
77. question forecast, calendar
78. question hole, gap, chasm
79. question space, habitat
80. question ground
81. question anxiety
82. question mark, symbol, icon
83. questioner, questology
84. question mindset, diet
85. question codex, book, bible,
86. question goal, guide
87. question start - question end
88. question language
89. question game, platform
90. question proposal - question change, edit
91. question fragment, piece
92. question routine, practice
93. question design, craft
94. question translation, reflection
95. question mirror, sight, glasses
96. question taste
97. question unknowns, plan
98. question training
99. question infrastructure
100. question culture, society

Intuitive List A: 100+ Intuitive Question Concepts created by formatting of 'X Question' and 'Question X'

The second was a categorical list of 100+ variations of question concepts produced systematically under the themes of all the major intellectual disciplines – the systematic framework I used was self-derived and was based on the following:

1. Natural Sciences: Math-Chemistry-Physics-Engineering-Computing-Biology-Earth Science
2. Arts/Humanities: Visual Arts-Music-Other Arts-Philosophy-Geography-History
3. Social Sciences:
Anthropology-Sociology-Psychology-Linguistics-Economics-Business-Law-Politic

1. Question Law-Justice-Constitution-Contract, Question Politics-Government-Policy, International-Moral-Comparative-Democratic Question, Autoquestion
2. Question Economics-Supply-Demand, Question Trade-Market-Consumer-Producer, Question Business-Entrepreneurship-Product-Service-Labour-Work
3. Question Cognition-Learning-Interpretation-Perception-Impression, Open-Closed Question, Agreeable-Disagreeable Question, Neurotic-Optimistic Question, In-Out Question, Question Emotion: Surprise, Angry, Sad Question, Developmental-Childish-Adult-Mature Question, Neural Question
4. Question Particle-Grammar-Syntax-Order-Words, Question Sounds-Intonation-Tone-Inventory, Question Semantics-Meaning-Pragmatics-Context-Synonym-Antonym, Reference Question,
5. Question Culture-People, Question Entertainment-Competition-Sport-Game, Verbal-Nonverbal Question, Question Negotiation-Debate-Therapy, Small Question, Question Family-Kinship, Question Religion-Spirituality-Transformative-Convert
6. Question Socialisation, Social-Lone-Civil Question, Question Identity-Class-Questionality, Question Power-Fame-Status-Legacy, Question Equality-Gendered-Sex
7. Question History-Time-Chronology-Past-Future, Prequestion-Postquestion, Ancient Question
8. Question Demography-Population-Mortality-Fertility-Migration, Question Travel-Tour-Route, Question Topography, Question City-Urbanisation-Street, Near-Far Question, Question Globe-Earth
9. Question Knowledge-Science-Intuition, Question Existence-Reality-Ontology, Question Logic-Opposite-Argument, Question Ethics, Philosophical-Deep Question
10. Colour: Red-Blue-Yellow-White-Black... Question, Question Frame-Composition-Light-Shadow, Question Shape-Form-Space-Texture, Complementary-Analogous-Tertiary Question, Question Picture-Diagram
11. Question Melody-Harmony-Chord-Rhythm, Multimodal-Modal Question, Question Medium, Question Story-Character-Plot-Myth, Question Fashion-Wear, Question Architecture-Design-Aesthetic, Question Taste: Spice-Sour-Salty-Bitter-Sweet, Question Touch-Pain-Movement-Orientation, Hot-Cold
12. Question Set, Prime Question, Odd-Even Question, Question Length-Area-Volume, Question Topology, Question Map, Question Probability-Distribution, Question Operations: Addition-Subtraction-Multiplication, Partition, Question Translation-Reflection-Rotation, Question Symmetry-Asymmetry
13. Question Reaction-Kinetics, Organic-Synthetic Question, Question Bond-Polarity, Question Variation, Isoquestion, Question Acidification-Neutralisation-Substitution
14. Question Motion-Momentum-Gravity-Force-Inertia, Question Heat-Transfer, Question Relativity, Question Nucleus-Core-Shell, Question Current-Voltage-Poles
15. Question Scaffold-Hinge-Foundation, Question Process-Management-System, Question Tools-Technology-Innovation-Invention-Object
16. Question Robotics-Sensors, Question Chips-Network-Routers-Sessions, Question Loop-Function-Program-Error, Supervised-Reinforced Question
17. Question Evolution-Ecology-Taxonomy-Tree, Question Genetics-Hereditry-Inheritance, Question Anatomy-Physiology, Question Cell-Unit, Question Medicine-Drugs-Prevention-Disease
18. Question Biome-Environment-Sustainability, Question Atmosphere-Air-Forecast-Draft, Question Ground-Layers-Fossils, Question Nova-Nebula-Constellation, Question Ocean-Sea-Glacier

Systematic List B: 100+ Systematic Question Concepts from all primary knowledge domains

For the third list, I was curious to try generative artificial intelligence, as this is the kind of creative but still fairly repetitive work that can be delegated. I prompted ChatGPT in August 2024 the following: “Hello, most gracious ChatGPT, I request a list of 100 most creative and unique ‘question concepts’ –

50 in the form of Question [Noun/Verb], 50 in the form of [Adjective] Question. Thank you very much.” [c].

- | | | |
|----------------------------|--------------------------------|----------------------------|
| 1. Question Time | 34. Question Science | 67. Surprising Question |
| 2. Question Authority | 35. Question Health | 68. Challenging Question |
| 3. Question Reality | 36. Question Nature | 69. Deep Question |
| 4. Question Perception | 37. Question Environment | 70. Critical Question |
| 5. Question Identity | 38. Question Universe | 71. Timeless Question |
| 6. Question Existence | 39. Question History | 72. Hypothetical Question |
| 7. Question Purpose | 40. Question Future | 73. Classic Question |
| 8. Question Belief | 41. Question Destiny | 74. Practical Question |
| 9. Question Truth | 42. Question Freedom | 75. Moral Question |
| 10. Question Faith | 43. Question Courage | 76. Scientific Question |
| 11. Question Ethics | 44. Question Empathy | 77. Artistic Question |
| 12. Question Memory | 45. Question Mind | 78. Spiritual Question |
| 13. Question Conscience | 46. Question Spirit | 79. Analytical Question |
| 14. Question Justice | 47. Question Emotion | 80. Reflective Question |
| 15. Question Knowledge | 48. Question Reason | 81. Inquisitive Question |
| 16. Question Imagination | 49. Question Intuition | 82. Insightful Question |
| 17. Question Wisdom | 50. Question Perspective | 83. Controversial Question |
| 18. Question Love | 51. Eternal Question | 84. Open-ended Question |
| 19. Question Friendship | 52. Philosophical Question | 85. Specific Question |
| 20. Question Passion | 53. Ethical Question | 86. Random Question |
| 21. Question Art | 54. Existential Question | 87. Essential Question |
| 22. Question Creativity | 55. Paradoxical Question | 88. Playful Question |
| 23. Question Innovation | 56. Rhetorical Question | 89. Disruptive Question |
| 24. Question Progress | 57. Intriguing Question | 90. Philosophic Question |
| 25. Question Technology | 58. Mysterious Question | 91. Meaningful Question |
| 26. Question Humanity | 59. Profound Question | 92. Interpretive Question |
| 27. Question Diversity | 60. Thought-provoking Question | 93. Narrative Question |
| 28. Question Culture | 61. Unanswerable Question | 94. Analytical Question |
| 29. Question Society | 62. Complex Question | 95. Evaluative Question |
| 30. Question Tradition | 63. Curious Question | 96. Hypothetical Question |
| 31. Question Language | 64. Simple Question | 97. Convergent Question |
| 32. Question Communication | 65. Abstract Question | 98. Divergent Question |
| 33. Question Education | 66. Fundamental Question | 99. Predictive Question |
| | | 100. Speculative Question |

Generated List C: 100+ Generated “Question [Noun/Verb]” and “[Adjective] Question” Concepts

From here, I created priority rankings of question concepts. Assigning a priority ranking allows a more manageable problem space, and is also based on the assumption that a proportionately small part of a question space represents the majority of the uniqueness and significance of the space, otherwise known commonly as the power law principle.

For RANKED LIST A: Intuitive List, I gravitated towards prioritising deeper, foundational concepts that were more abstract and focused on the nature or properties of questions.

1. Properties: Question Type/Category/Typology/Identity/Class
 - a. Question Structure/Anatomy
 - b. Question Foundation/Ground
 - c. Question Start, Question End
 - d. Question Role/Function

2. Qualities: Good/Positive Question, Bad/Negative/Terrible Question
3. Place: Root/Home Question, Transitory/Transition Question
4. Fundamental: Zero Question, Silent Question, Complete Question
5. Characteristics: Parallel, Analogical, Metaphorical Question, Inverted, Perpendicular Question

For RANKED LIST B: Systematic List, I prioritised about 20 categorised concepts from a first reduction (in NOTES), based on what I intuited as significant, focusing on selecting concepts that were still deep and abstract, but had some metaphorically extendable element from their respective disciplinary concept.

1. Question Cognition: Question Learning/Transfer, Question Cultures, Question Relativity, Question Knowledge/Intuition
2. Question Therapy: Transformative Question, Question Persuasion, Question Power/Force
3. Question Logic: Near/Far Question, Question Frame, Question Light/Shadow/Symmetry, Prime/Odd/Even Question, Translate/Reflect/Rotate Question, Question Bond/Polarity
4. Question Medium: Question Diagram/Nodes, Question Space/Map/Loop, Question Variation/Typology, Question Unit/Ground/Layers

For RANKED LIST C: Generated List, I again asked the AI to finish the job, so I prompted ChatGPT (August, 2024) to assign a priority ranking to the top 20 concepts of its own list, then top 4 [c].

1. Question Existence - Deeply fundamental and existential.
2. Eternal Question - Timeless and profoundly significant.
3. Question Truth - Central to philosophy, science, and ethics.
4. Philosophical Question - Broad and encompasses many other concepts.
5. Question Purpose - Fundamental to human motivation and meaning.
6. Existential Question - Critical to understanding human condition.
7. Question Identity - Key to personal and social understanding.
8. Profound Question - Engages deep thought and contemplation.
9. Question Ethics - Essential for moral guidance and societal norms.
10. Rhetorical Question - Common in communication, literature, and speeches.
11. Question Reality - Crucial for understanding our perception of the world.
12. Mysterious Question - Engages curiosity and drives exploration.
13. Question Knowledge - Central to education and intellectual growth.
14. Thought-provoking Question - Stimulates critical thinking and discussion.
15. Question Freedom - Vital to political philosophy and human rights.
16. Controversial Question - Sparks debate and reflects societal issues.
17. Question Love - Fundamental to human experience and relationships.
18. Intriguing Question - Captivates interest and promotes inquiry.
19. Question Innovation - Drives progress and technological advancement.

20. Complex Question - Reflects the intricacies of many subjects.

Of these 20, ChatGPT identified Question Existence, Truth, Purpose and Ethics as the most significant 4 topics, which made sense to me, after my own attempts at intuitively parsing potential question spaces.

I mostly combined the RANKED LISTS A and B, with only a minor consultation to List C, to create the following first draft of a structural outline for systematically thinking through questions theory elements:

- A. Logic x Truth
 - a. Question Unit/Ground/Layers, Question Frame, Question Light/Shadow/Symmetry
 - b. Complete Question Start, End, Root/Home, Transition Question, Zero, Silent Question
 - c. Translate/Reflect/Rotate Question, Question Bond/Polarity
- B. Cognition x Function
 - a. Question Learning+Transfer, Question Knowledge/Intuition
 - b. Question Relativity +Cultures, Question Role/Function
- C. Medium x Ethics
 - a. Question Diagram/Nodes, Question Space/Map/Loop
 - b. Question Type/Category/Variation/Typology/Identity/Class
 - c. Parallel-Analogical-Metaphorical, Inverted-Perpendicular, Near/Far, Prime/Odd/Even
 - d. Qualities: Good/Positive Question, Bad/Negative/Terrible Question

From here I engaged in a much messier writing, research and drawing method more characteristic of real research.

Meta Question Application

You may have noticed that in this paper that deals with questions, I also employ a few of the very methods that are experimentally listed, as an opportunity to demonstrate the ideas presented and to ‘walk the talk’. The writing of this paper is an excellent opportunity to improve my own questioning competency, particularly in the realm of questioning research.

1. Each section and subsection title, including the main title, includes a primary motivating Q. This helps with opening up a question space the reader can consider for the consolidation of their own knowledge and experience before continuing. They can also continually update this question space should they find any bit of my writing insightful.

As you're reading my little reflective section, I'm going to take a wild stab in the dark and say that you are and have already subconsciously reflected on the question space initially generated by this section's title: How Do I Question Better?

2. The theorycrafting for questions is based on the experimental technique of questions described in this very section.

In fact, employing this method for systematically theorising a relatively novel space served as the primary bulk of this paper. In another timeline, I will have applied the generative questions technique for each question of each section, but I have opted not to distribute too many layers as the process can get messy and esoteric very fast.

3. No, you're not crazy, I do pepper questions throughout the document that I don't actually fully answer.

The reason I do this is I have no pretence to present as an authority on this subject at the moment. Rather, I prefer to present myself as both a source of learned authority and learning curiosity, probably in about a 50/50 split if you held a gun to my head and asked for numbers. The reason I do this is because while I have researched and thought a fair bit about this subject, I think I have almost a decade before I can comfortably act with strongly established authority.

Discussion: What Questions Give the Biggest Insights?

Besides the theoretical questions framework that served as the bulk of this paper, I suspect there are other mechanisms and insights for generating better insights in the form of technology, as alluded to in my research method, and deeper cultural, linguistic influences. [x]

Technology: How Can Technology Enhance Questioning?

After these three methods of generating a sample of 300+ questions, I had a look at any duplicate concepts just out of curiosity and found that they were biased towards my creative impulses at least 2/3 – tentatively noting that the terms: Deep, Open, Future, Identity/Identical, Emotion and Culture appeared across the three lists, but more likely are just an indication of my own intuitionary bias.

I only included the use of generative AI parallel to my primary intuitionary method to acknowledge the possibility of employing such for a questions practice. In reality, I can envision a very similar methodology outlined in the paper that hinges primarily on the use of generative AI:

1. Generate a 'question space' of unique and unexplored concepts around a particular theme or idea
2. For each, elaborate by generating a 'question set' for each concept.

3. Look through each explanation of each concept and connect as much as possible into several variations of a coherent framework or theory.
4. Repeat recursively.

At some point in this infinite idea and theory generation loop, selections are required anyway, because we humans have limited time, capacity and real-world resources. However, outsourcing key impactful decisions and ultimately, a source of significant agency and power to AI actors is a task I do not prefer. I recommend that if an author is using AI extensively, the same author should position themselves as the bottleneck in regular, consistent decision-making chokepoints in the process.

There is no need to solely rely on only human thought or only artificial intelligence to approach problems. The share of human-AI contribution ought to be seriously considered – in the context of exploring unknown question spaces, I don't believe there to be an inherent advantage to either. In general, AI has unmatched generational abilities and people have an unreplicable human intuition, not to speak of particular examples or extremes.

An interesting AI-Human concept in questioning is prompting – textual generative AIs are usually 'prompted' by some question or input and generate an answer accordingly. This can be extended to humans too – are we not always 'prompted', or questioned, every waking moment as to what to do next?

Culture: Where Do Questions Originate?

I also strongly believe that my puny grasp on primarily the English language leaves out a lot of potentially very interesting cross-linguistic and cross-cultural approaches to the use of questions. There is reason to believe that there may be significant deviations in question use and function across different language families, following their linguistic variations [c]. For example in Chinese, a more pictographic writing system, allows semantic connections to be presented with an additional layer of nuance in the form of a visual mode of interaction.

Cross-culturally, even the broadest stereotypes about Western and Eastern cultures, such as WEIRD (Western, Educated, Industrialised, Rich, Democratic) [c] may have insights for questioning. Western cultures, for example, seem much more likely to ask innovative, educated, privileged, equalising and therefore inherently less practical, foundational, group-binding questions.

However, increasing globalisation may do 3 things: lead to increasing homogenisation, deviation, or for cross-linguistic and cross-cultural differences to remain about the same. There is evidence to believe that homogenisation is the most impactful path [c], hence as a body of knowledge, it is important to further the understanding of these contextual differences.

Futures: What is Unknown About Questions?

Personally, after conducting this initial literature survey, theory and practice formation, I'm most interested in equal amounts refining and expanding my frameworks and practices, and continuing to walk the talk. Of particular interest that is somewhat outside the scope of further edits to this paper:

1. Zero Question: What are the most promising leads to create a zero question?
2. Infinite Question: What is the longest useful question that can be made?
3. Transformative Question: What are common structures/patterns in transformative questions?
What are key methods to generating a transformative question?

Further down the line, it would be useful to design studies to know about:

4. Question-Answer Ratio: Are there contexts or scenarios where more questions and/or answers are said? What is a good question-answer ratio in different contexts?
5. Neuroscience: What are the neurobiological bases of questions? Is there evidence for 'instinctive elaboration' where questions can apparently hijack the brain?
6. Healthy Questioning: The importance or exact range of healthy weighting between QA quantity and quality at different age groups.
7. Animals: Reconfirming whether animals can question. Can questions exist without humans?
8. AI: How do questions asked by AI systems differ from human questions? What are the implications of AI asking questions and how can it help with AI safety/alignment?

Much later, it would be good to conduct comparative analyses (Cross-X Questions) of the following areas:

1. Cross-Linguistic: English, Chinese, Arabic, etc.
 - a. Differences in the use/structure of questions/answers across languages?
 - i. Do the biggest differences match with language family distinctions?
2. Cross-Cultural: Western, European, Eastern, African, Latinate
 - a. Are there differences in the use of questions/answers across cultures?
 - b. How did questions develop with human cultural and biological evolution?
3. Cross-Discipline: Natural Sciences, Social Sciences, Humanities and Arts
 - a. Are there differences in the use of questions/answers across disciplines?
 - i. Where do the biggest differences occur?
 1. Can these boundaries be used as another form of demarcating disciplines?

Evidently, as shown in the Experiment Subsection, lots of concepts were skipped and not fully elaborated on or even initially explored on my account.

To cap off this ‘Futures’ discussion, I’d like to give the reader a promise. I intend to in part, devote my life towards the pursuit of the area of studying and applying towards the ‘Unknown’, whether that is in further developing questions or futures as a theory and practice, or otherwise; including refining a visual form of communication. My open question space in this respect, is for my future collaborators and colleagues. Hope to talk soon.

Conclusion: What is the Biggest Potential of Questions?

I would like to end with a call to the reader. Turnbull (2014) called Meyer a “man out of time” developing his ‘Problematology’ a “new philosophical paradigm”. I concur and believe, quite strongly – that a field of question studies as a source of serious scholarship and advancement is in order.

I am a stickler for catchiness and simplicity. Although the term ‘Problematology’ has an appropriate Greek root, I propose alternatives that roll off the tongue a little easier. Warren Berger and others use the term ‘Questionology’. I propose the less wordy ‘Quaestology’ – from the Latin root ‘quaere-’ or ‘quaest’ to seek or ask, and of course the ‘-ology’ to mean the study of, and to distinguish it from a possible study of ‘quests’.

I think, that the largest potential for questions lies in transforming the way, that we think. In Western philosophy and linguistics, overwhelming emphasis is placed on logic, centered around propositional statements.

It is possible, that this is only half of the entire discipline of how philosophy and subsequently, all thought, is conducted.

It is possible, that the logic of propositions is derived from the logic of questions, and queries of questions come from answers of statements.

It is possible, that the field of analysis that has long been missing and disregarded from the minds of all of us thus far, is exactly, this theory, and practice of Question.

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