

Tarot card reading and the art of communicating economic ideas

The Global Financial Crisis and a breakdown in traditional forms of business news media have led to a significant change in the types of economic arguments and information being processed by the general public. In this new world, economists' prior forms of persuasion tend to hold less weight. Using the analogy of tarot card readers, this paper characterises economic communication as a discipline that is separate, but related to, economic science. Economic communication is shown to require a relatively greater focus on peripheral assumptions and a clear core generalizable to any economic description.

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Matt Nolan

Analyst

Infometrics Ltd

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Following the Global Financial Crisis, the sometimes near incoherent explanations of this large event by analysts in public, and the failure of the discipline to “forecast” the crisis, there has been a significant negative impact on the public’s view of how persuasive economists are. Adding to this, technology is both making it less costly for non-economists to publicise sometimes fallacious economic arguments (eg the lump of labour fallacy, mercantilism) and has undermined one of the economists main allies when it comes to communicating with the public – business journalists.

To understand how to deal with these changes, it is useful to analyse the relationship between the communication of economists and the views of the public at large.

The focus of this paper is on the relationship between economists and the general public – specifically the folk economics that makes up the inherent way the public tries to understand the chaotic and difficult modern world that is around them. Outside of (Rubin, 2003) and literature that suggests that economics is largely a form of folk theory (Rubinstein, 2012), (Rosenberg, If economics isn't a science, what is it?, 1994), (Maki, Two portraits of economics, 1996), (Rosenberg, Rosenberg on the Nature of Economics, 2011)), this issue hasn’t received the same level of discourseⁱ.

While authors such as (McCloskey D. N., Storytelling in Economics, 1990)ⁱⁱ have stated that the different languages of economists and non-economist are part of the reason for misunderstandings, it is useful to try and characterise why this is the case. By using the example of how a tarot card reader communicates with a client, we will try to extend the (Rubin, 2003) description of folk economists by assuming that the analogies used by economists are taken on as “fixed archetypes” by this group.

By viewing arguments in this way, we can think about the ways certain forms of assumptions characterise the trade-off between clarity and truth when an economist forms an analogy.

Furthermore, the use of economist’s analogies as archetypical relationships for a broad range of phenomenon by folk economists helps us to understand the interrelationship between individual explanation and the broad set of arguments economists have to make. Taking this into consideration will improve the consistency of economist’s explanations – both making them potentially more persuasive and less likely to be used out of context.

Motivating question

Among economists, economics is strongly persuasive. Economists share a language, a framework, and a set of questions. As a group economists admit that our theoretical results are regularities that exist given our ceteris paribus assumptions (e.g. (Mill, A system of logic, ratiocinative and inductive, 2011), (Mill, On the Definition and Method of Political Economy, 2008), (Schmidt-Petri, 2008)). Economists then carefully try to generalise these assumptions, in order to find a “core set” of assumptions that matter for our regularity, followed by questions about the applicability and believability of those core assumptions (Mill, On the Definition and Method of Political Economy, 2008), (Maki, Reorienting the assumptions issue, 2004), (Maki, Realistic realism about unrealistic models, 2012), (Sugden, 2008).

However, economists also have to make their case to the public at large. The public, or folk-economists (Rubin, 2003), base their views on an underlying mental model of what is going on which may be different from that of an economist. As economists would like to persuade folk economist through conversation, the burden of proof is on the economist. This point about giving non-economists more of the benefit of the doubt has been well established in the past, with McCloskey stating it clearly in terms of language (McCloskey D. N., *Storytelling in Economics*, 1990)ⁱⁱⁱ:

A scientist convinced of what she writes will come from a certain background, supplied with a language. Unless her reader knows roughly the same language ... he will misunderstand and will be unpersuaded.

As a result, this begs the question, how can economists improve their ability to communicate trade-offs with the public? Especially given the massive trade-offs faced by economists when they do try to communicate: attention spans are limited, only soundbites are played on the radio, only small parts of any quote will make it into the newspaper.

(Rubin, 2003) discussed education as a way to improve communication between the groups, but I would like to broaden the discussion a bit in this paper. My aim is to ask how folk economists may take the stories of economists and use them in their own mental model. The relationship between folk psychology and scientific psychology offers a lens to help understand this, and as a case in point I intend to look how tarot card reading can be used as a communicative model of psychology. Given that, I will ask what principles may be useful to keep in mind when economists communicate with folk economists.

Starting definitions

At this point it is important to tie down what we mean by certain terms. Let us start with persuasion:

Persuasion: The use of language, within a body of knowledge used by that social group, to convince an audience of the validity of a conclusion

This definition differs slightly from the typical definition given by (Hyland, 2008), pg4) "persuasion ... involves the use of language to relate independent beliefs to shared experience". The overarching meaning of the definition is the same, the difference is wording is solely so we can relate it to the view of an argument as relating premises to conclusions.

Persuasion is what an economist is trying to do when they communicate with the public. In this way, persuasion works by convincing a folk economist to change their view, by changing something in their implied mental model. Often this involves getting the non-economist to change something in the body of knowledge they have presumed.

The "body of knowledge" in of itself is a difficult concept. The folk economics views are already a function of their body of knowledge, and many of the principles that an economist may need in order to make their conclusions compelling may not exist in the body of knowledge of a non-economist.

Body of knowledge: The set of beliefs held by a non-economist regarding the interrelationships between factors, the scope of the factors of interest, and the values placed on outcomes and the factors themselves.

This is an important issue, and identifying these types of fundamental elements (what we are eventually going to define as archetypes of an argument in economic communication) will be important. Essentially, the body of knowledge we may need to be persuasive, and the body of knowledge now (where fallacious arguments are taken as fact, and some conception of trade-offs remain unclear) may be different things.

While persuasiveness is a goal, this paper is not about trying to say how economists can be more persuasive. The goal here is to tackle an earlier step, asking how explanations provided by economists may be used by non-economists to form part of this body of knowledge – and then ask what economists should consider when forming a description, given this behaviour.

We've defined the ideas of persuasion and the concept of a body of knowledge for an individual, or community. Now we need to define the individual or community of interest.

Folk economics: Folk economics is the economics of untrained/uninitiated people (Rubin, 2003)

It is useful to compare the attitudes towards folk economics to the attitudes towards folk psychology within economics (Rosenberg, *If economics isn't a science, what is it?*, 1994) and folk disciplines in general (Fletcher, 1995). In all these cases, the folk argument is often taken as (relatively) unscientific and it is accepted that formal training can help people understand the issues, and move views closer to views of the scientific discipline.

However, when it comes to folk psychology (Fletcher, 1995) and many of the older classes of economics and philosophy^{iv} (eg mentioned in (Moore, *A Defence of Common Sense*, 1925), (McCloskey D. N., *The good old Coase theorem and the good old Chicago school: A comment on Zerbe and Medema*, 1997), and arguably in (Mill, *A system of logic, ratiocinative and inductive*, 2011)) folk theories can be seen as akin to a form of knowledge built from experience – both individual and social. Common sense, common sense morality, and intuition (all variants on folk theory) were seen as forms of knowledge with purpose.

Given this we are aiming to dig into this matter a little more. For all that all that follows, we will assume that the logical arguments provided by economists are the right ones and that our sole interest in folk economics is to understand how to communicate ideas the economics community already accepts. If this is false, then it isn't clear why economists should be determined to make their arguments more persuasive than they are to the public at large – and as a result, there would be no purpose for the paper.

As with psychology, we will argue that good economic arguments for the public will make the assumptions behind “folk economic” policy recommendations clear.

Informal chats

Often it is claimed that the language of economics is too complicated, and that economists merely need to figure out how to sufficiently water things down in order to explain things. An example of

this could be taken from the Treasury's recent press conference on their "higher living standards framework" (<http://www.treasury.govt.nz/abouttreasury/higherlivingstandards>).

During the conference a tweet was sent from a journalist that said the following^v:

Treasury speak, an example: "Endogenous growth models bring technological change (knowledge accumulation) to the forefront of the analysis."

This was followed by a series of people on twitter generally being insulting and demeaning the work (which is of course entirely unfair). Now I didn't pick out this quote to pick on Treasury, out of a series of potential quotes I could have picked out of ALL New Zealand economics agencies I felt this quote got the point about potentially inappropriate technical language across best – as it is an incredibly clear quote for an economist, but not a non-economist.

Here the trade-off Treasury was working on seems like a clear one, one where they may have erred slightly too far on the side of "clearly defined technical language" instead of "simpler, longer, and less clear language" for non-economists. Or an area where Treasury has determined that it should not define the issue in clear language for non-economists, as this would capture "less" of the underlying phenomenon.

However, while this is the obvious tack to take when looking at communication by economists to non-economists, it is partial – yes economists have focused on economic issues and invested in understanding them, but this explanation seems to paint non-economists inability to agree with economists' as solely a result of them not understanding technical terms.

In truth the issue is more complicated.

In fact, as I will argue the main issue is not even one of too much technical language per se – it is too little appreciation for the underlying models and arguments of non-economists. If anything, the accidental overuse of technical language by Treasury officials may be seen as preferable to some of the awful analogies that are used by economists!

In order to garner an impression of how the communication of economists works in the New Zealand context I contacted 13 journalists who work in business journalism in New Zealand, either through radio (1), newspapers (8), or online commentary (4). There were ten replies.

Given that this sample of journalists knew that I was asking, and that I worked (often with them) in the economics space in New Zealand, their comments were invariably biased towards being more positive. Even so there were a set of common themes:

1. Although all journalists did point out that our language can be a bit technical, all but two made the point that it was their job to translate it for the larger audience – meaning that this was only a small issue.
2. However, all the journalists noted a concern that they had very little time to focus on specific issues, and to translate ideas. And that this lack of time was intensifying with increasing competition from online sources.
3. More importantly they didn't feel that they had access to economists to ask questions to – especially not specialist (academic) economists. Four of the journalists explicitly (and

independently) stated that they are surprised that there isn't a macroeconomist at one of the universities whose main role is discussing macro issues of the day, in light of the current crisis.

4. A minority (two) found it hard to deal with economists because they would use appeals to authority rather than explaining why – these tended to be younger respondents.
5. Even more interestingly, all of the journalists indicated that they felt when economists actually trying to explain things they would “oversimplifying the problem”. None of the journalists were terribly clear on what they meant by this, other than stating that they felt part of the explanation was missing.
6. Four of the journalists explicitly made a point of stating that one issue with economists was that they often failed to express empathy when discussing trade-offs. This made economists arguments less persuasive with people, by making it an “us vs them” situation.

I found the combination of the first and fifth points to be surprising – as it suggests a failure of the narrative used when discussing issues. It is not so much about “dumbing it down” as it is about making the description, explanation, and possible conclusion of any argument persuasive for a group of people who haven't been trained/self-selected/indoctrinated in to appreciate and agree with these arguments.

Both economists, and non-economists, seem to believe that, when it comes to describing economic results to non-economists there exists a trade-off between clarity and truth of the statements put forward. This is captured in a couple of ways:

- 1) Simplicity of the argument vs full understanding of the argument
- 2) The true weight of the argument for informing beliefs vs the inference provided by what the economist is saying. (The way economists hedge arguments differently as they do not expect people to understand the trade-offs – overselling an argument). (Hyland, 2008)^{vi}

As has been indicated, the solution economists seem to take on is to overtly oversimplify, and to exaggerate the degree of confidence they have about results. On one level this is fair, in a soundbite on radio, or a paragraph in the paper it is impossible to get across the subtleties of argument and the true conditional nature of any result that you are trying to explain.

Economists are going to be asked to make these sorts of statements. And it is better to have a professional who specialises in a certain area of economics framing the narrative around an issue – rather than vested interest groups who often simply assume that what is in their interest is in society's interest.

However, I also don't agree that we get the full picture if we think of the choice of statements made by an economist existing along a single “clarity-simplify” line – and believe that unless economists try to understand how language is interpreted there is a risk that economists will genuinely saying the wrong things, with the scarce time they are given.

As a result, it appears that the art of communicating economic ideas to folk economists needs to be discussed.

Separate disciplines: Defining economic science and economic communication

In (McCloskey D. N., How economists persuade, 1994) it was noted that “the percentage of terms that a non-professional reader could understand has fallen steadily in economic journals since the 1920s”. This makes sense, the purpose of journal articles is not to persuade or educate the layperson, the politician, or the businessman – it is to persuade and inform other economists. The discipline of building economic knowledge and persuading other economists is the cornerstone of economics as a discipline. However, persuasiveness among economists is neither a necessary nor a sufficient condition for making an economic argument that persuades those who have not had the opportunity, or the predilection, to study the intricacies of economic thought.

As a result, in this paper I will separate what economists do into two different disciplines: Economic science, and economic communication. In reality, it is unlikely that we can separate the discipline this neatly – but hopefully this simplifying assumption will help us to focus light on what is important, just like the “scientist-engineer” distinction (Mankiw, 2006).

Economic science: A generally progressive scientific discipline concerned with the allocation of scarce resources, and the trade-offs involved with policy. Has a “hard core” that is strongly methodologically individualistic – although evolutionary and behavioural economics illustrate that some of the strongest assumptions around preferences are amiable to progressive change^{vii}.

Economic communication: Communicating ideas about scarcity and the trade-offs inherent in policy to the general public, who are generally not trained economists.

Given this, when it comes to economic communication, economists are interested in persuading or at least communicating trade-offs to non-economists based on the inherent strength of ideas from economic science.

Note that this isn't to say that economic science is devoid of issues with regards to persuasion and scope. (Rubinstein, 2012) is just as concerned about the way economic arguments are had within the discipline as he is outside of the discipline for example. However, for the sake of argument we will assume that economic science has given us a series of clear, unconscious, results. Given this we still need to think about how to communicate these to the public at large.

Economic science offers a clear way forward for thinking about persuasion when we look at a more academic audience. Given what we have discussed above we can say:

1. Economic science aims to isolate tendencies to create a body of knowledge that we can help use to explain and describe phenomenon.
2. There are a core set of ceteris paribus assumptions that we assume to be true, as self-evident – given those we make additional ceteris paribus assumptions to isolate causal effects.
3. Lesson is that the real world is incredibly complicated – and one/a number of our many causal drivers or ceteris paribus assumptions could be the driver of an event.

This is an incredibly powerful method that provides real knowledge. However, often explanations in public tend to focus on a single driver combined with a general appeal to authority (consensus from the community of economists using theory, appeal to data). To non-economists this can appear relatively unpersuasive (McCloskey D. N., *The Rhetoric of Economics*, 1998) – especially when the implied prediction of this uni-causal model turn out false!

Now given enough time and effort from all sides, economist could merely teach economic science to everyone! However, that is unrealistic.

To help figure out if there is another way to communicate scientific ideas to folk audience, we will turn to tarot card reading.

What is tarot card reading?

Economists have compared themselves to a number of things in the past. Keynes, when discussing Alfred Marshall once stated (Keynes, 1951):

the master-economist must possess a rare combination of gifts. He must be mathematician, historian, statesman, philosopher—in some degree. He must understand symbols and speak in words. He must contemplate the particular in terms of the general, and touch abstract and concrete in the same flight of thought. He must study the present in the light of the past for the purposes of the future. No part of man's nature or his institutions must lie entirely outside his regard. He must be purposeful and disinterested in a simultaneous mood; as aloof and incorruptible as an artist, yet sometimes as near the earth as a politician.

Along these lines, (Cowen, 2005) has compared economists to novelists, while (McCloskey D. N., *Storytelling in Economics*, 1990) compared economists to poets. However, here we are going use a comparison that doesn't seem as flattering – comparing economists to tarot card readers. By seeing where the journey takes us, hopefully this will guide us some insight about how to build explanations and have debates with the large pool of intelligent non-economists around.

Having defined economic science and economic communication as separate disciplines, and having noted that there are different audiences for economic ideas, we are now going to take a brief sojourn to systematically describe some of the principals involved in tarot card reading.

The client of tarot card readers are people who want explanations of what is going on in their life and what to look out for, but who don't want to see an actual psychologist. While tarot card reading obviously strongly uses appeal to authority (where the external authority is the cards) I will argue that it uses a broader set of principles to discuss psychological ideas. By doing so, it offers a way of linking “folk psychological” and “scientific psychological” explanations and as a result provides a method to help persuade a person to move away from what may be harmful “common sense psychological” explanations of their actions or situation^{viii}.

We can define these two groups as:

Psychology: The scientific study of mental functions and behaviours of individuals.

Folk psychology: The natural capacity of uninitiated individuals to explain mental functions and behaviours of individuals.

In this way, tarot card reading by a psychologist for a non-psychologist (or folk psychologist) can be seen as a different method for communicating scientifically robust psychological ideas to an individual who is relying on their own inherent model of their mental state.

Now note, this definition can be relatively strained when it comes to looking at what tarot card readers actually do. However, as long as we can think of tarot card readings as a form of model it will provide a useful analogy.

How is tarot card reading a “model”?

Following the definition of (Birks, 2012), “a model is a simplified representation that is intended to highlight the main elements of a phenomenon”.

Given this, different types of models can be made to try and achieve one (or more) of five things:

1. They can be used to understand an issue or area
2. They can be used to explain/describe/persuade in an issue or area
3. They can be used to predict/inform about risks in an issue or area
4. They can be used to determine how or what to measure for an issue or area
5. They can be used to determine what we need to explain and/or understand

In terms of purpose, tarot card reading aims to function as a model. But how does it achieve this?

The process of using the cards is two-fold. It allows the person reading the cards to get raw data – by receiving a response and other sense data from the client. It also helps to give a framework where psychological ideas and concepts can be communicated to the client, in a way it is easier for the client/folk psychologist to interpret. The reading is self-contained and complete, it is said to make up a “hermetic circle” with a past, present, and future. In this context, as long as the analyst has a clear understand of cause and effect the reading should be consistent.

In terms of narrative, a tarot card reading is a “paint by numbers” way of trying to telling a story!

However, how does the client/folk psychologist interpret this process? I will posit here that folk psychologists view the explanations as a description of the types of typical relationships, or characteristic types of relationships, that exist. These archetypes, as I term them here, are then taken as core relationships for the folk psychologist that fit into their mental model of the question at hand and other related questions.

Tarot card archetype/analogy (from the readers perspective): A set of characteristics/assumptions that together form a simplified “typical/type” person or situation. Can in turn be “unpacked” and “expanded” to provide an argument about why the archetype holds, or when it does not hold.

Tarot card archetypes (from the clients perspective): A clear “typical/type” that can be used to update beliefs regarding the clients mental model of the mind.

So an archetypical relationship is said to exist when it contains information about a set of assumptions and the way they relate together, and it does it in a way that is less cognitively demanding/easier to relate to than trying to learn and remember a series of the individual

relationships^{ix}. In this case, this archetype of simplified story will be used by individuals as a rule of thumb to evaluate these types of relationships in the future.

The archetype serves a very similar function to the ‘models as metaphor’ view of (McCloskey D. N., *Metaphors Economists live by*, 1995). Looking at a metaphor and the push for “short stout links” (McCloskey D. N., *The Rhetoric of Economics*, 1998) and tendencies makes sense when trying to push forward science, where a shared language allows scientists to clearly describe the underlying elements and assumptions involved to each other.

We will differentiate between metaphor and archetype for the purpose of communicating with non-experts. An individual metaphor provides a “typical” or “given” relationships between factors for non-experts who are not trained to reduce these arguments down – and this non-reducible relationship will be termed an archetype^x. It is the way the non-experts take and processes this metaphor and use it to update beliefs forms creates an archetype that is used by the non-expert.

Non-experts taking these metaphors and turning them into archetypal descriptions of what will happen – and thereby placing them into their body of knowledge – is the main justification for our focus on archetypes here.

By building up a description analogies, which are products of scientific psychological argument, tarot card readers are able to persuade the individual they are reading with regards to things going on in their life and within themselves – these persuasive objects are taken as archetypal relationships. A compelling archetype will become accepted if it becomes part of the body of knowledge an individual holds – becoming part of what they use to explain other aspects of their life outside of the initial purpose of the archetype.

Archetypes are fundamentally idealised figures and stories that capture fundamental elements of the area of interest. In economics an archetype could be seen as the production function, or the monopolistic competition firm. In tarot card reading or classical studies an archetype could take the form of a hero, or a mother figure. These are all metaphors, but when they are taken as broad constructs of “what is” by folk economists we will terms them archetypes.

Tarot card reading models and psychology

A psychologist who decided to utilise tarot card reading will come armed with analogies, which will be interpreted as archetypes, when they sit down at the table. These archetypes will have fundamentally been built from the application of the scientific discipline itself^{xi}.

These archetypes have two purposes:

1. They help to provide a situation or construct which allows the reader to pull data about the individual.
2. They provide a narrative/story to help explain a person’s situation and their interaction with others.

Now what do these archetypes mean when it comes to psychology?

The process of tarot card reading is a framework that works with individuals, provides data, and helps to communicate ideas. But tarot card reading alone does not constitute treatment for a

patient, an objective analysis of their mental state, or a scientific understanding of an individual's behaviour.

We need to ask “where do the archetypes come from” and “how do they relate to our understanding of the psychological processes of individuals”. These archetypes are linguistic devices that help people relate to the ideas, but they need to in turn be related to the actual scientific discipline of psychology to be useful. *And that is where we run into a potential trade-off between the clarity and the representative truth of an archetype^{xii}!* The trade-off is between how understandable an analogy/archetype is and how close it is to the functional relationship discovered through scientific progress.

The “model” of tarot card reading does not presuppose an explanation^{xiii}, it simply provides a framework for analysing ideas that is consistent and broad. It ties together sets of archetypes that need to have some basis in the scientific discipline of psychology – where the archetypes are made up of a set of inherent assumptions about individual behaviour, some which are central to the explanation, and some that are there to increase simplicity or make the explanation relatable for an individual.

In what way is this type of model a form of communication?

Although I have no experience with psychology, and this should be read as such, I have spent time trying to use tarot cards as a method of communication.

As a form of communication the minimum our model and used archetypes will need to provide are:

1. An ability to illustrate why another interpretation is flawed
2. An ability to describe why the interpretation follows logically from accepted premises
3. Consistency in definition and response over the interpretation of multiple questions

We can discuss the first two conditions by discussing the way archetypes are used by a reader.

Archetypes provide the core mechanism that a tarot card reader can come back to in order to achieve all three of these results – allowing for persuasion when the other individual disagrees. Archetypes offer a way of partitioning what would be a complicated and time consuming explanation for a psychologist into more manageable elements.

From this, a tarot card reader can use these archetypal stories and pull them together to draw out data from the individual, and try and discern meaning about what is going on. Given the psychologist interest in the study of the mental functions and behaviour of individuals these archetypes will be based on what it means to be human. Given the ability to use these archetypal relationships to discern information, they can also be used as a framework for explaining the individuals experience.

Now the challenge here, when we impose a stricter interpretation of the underlying psychological basis of these archetypes (an actual psychologist) is to ensure that the archetypal relationships that are being used are interpreted correctly. A tarot card reader must be very careful with the assumptions they make. The stories they tell rely on a series of assumptions, some important and some not important. Understanding which assumptions matter, how they matter, and how

archetypes exist as a way of more easily delivering and explaining a set of assumptions is a key principal for doing any single reading.

While settling the first two points may make tarot card readers persuasive for an individual at a point in time, like all service industries repeat business is vitally important.

This adds an additional pressure for the tarot card reader – how can they ensure that their readings are consistent between meetings with their client. It is unlikely that a tarot card reader will remember the prior meeting as well as the person they did the reading for, and the previous assumptions that were made, or representations given to the cards, will be taken as given by the person being read in following meetings.

One thing I always found when doing tarot reading is that the second reading for a person is the hardest. In the first reading you have a clean slate, and it is easy enough to use the archetypes and feedback from the client to help discuss issues with them. However, by the second reading the client believes they have all this “sorted out” – they noticed the cards and their positions seemed to have specific meaning, and try to read parts of it for themselves. Over time, you can eventually convince the client that this isn’t really what the reading is about, and that it is more about the conversation and trying to discuss issues inherent to them consistently. However, no future reading will be as simple and clear as the first one. Even if the question is different, people’s experience from their first reading will colour their interpretation of following readings.

In this context, having a clear understanding of the process and how you use the cards and their position is important. This would be simple enough if we could define a card as equal to an archetype, as we have established that an archetype represents a series of assumptions and we would then be able to keep those consistent when we discuss things.

But while a client will take the relationship between the cards and positions as “archetypes”, the true analogy a reader is trying to use is independent of the cards and depends on the specific information you get from the individual.

As a result, cards that look like they should give a fixed meaning to a person being read will be read in different ways – creating a concern about consistency and making the discussion less persuasive.

This is an important issue to keep in mind when reading tarot cards. The point of the card itself is to illicit responses to get information, to then decide which underlying archetype to use to both gain more data and help to build an explanation to the question at hand for the individual. If it wasn’t for the way people responded to the cards by providing bits of information they could effectively be ignored, and the underlying analogies could be used as a way of building an explanation for the individual involved. However, the use of the cards leads to a presumption of “archetypical relationships” which make this process more difficult.

The determination to fix meaning to cards, and the original story you painted for them, is an example of how these folk psychologists may try to apply these ideas “too widely”, viewing them as archetypes.

Coming back to economics – what does this tell us about any “economic communication” discipline?

The entire process of tarot card reading is one of research into the individual, and communicating ideas about themselves to them. In this sense this is not something that could be directly translated into economics – where we do not have the time to iteratively talk about an issue until the economists description is clear and then (hopefully) persuasive.

Unlike tarot card readers, the questions economists have to answer are already well defined, and the data does not have to be extracted from the responses and behaviour of the person they are talking to.

While it is dubious to say that tarot card reading in of itself offers much too applied psychology, the principle behind the method and language used does offer a way forward when it comes to thinking about communicating scientific ideas to “folk” disciplines and “folk” analysis.

And this is fundamentally what we are interested in doing here. As we noted earlier Paul Rubin defines folk economics as “the intuitive economics of untrained people”. From here Rubin states that the key difference between folk economics and economics is a focus on wealth allocation rather than production or incentives.

While this is consistent with my experience, it is only part of the story – in truth we can expand this idea out. Just because someone is untrained in the particular nature of economic argument and debate does not mean that their views are not based on an inherent model.

The inherent model an individual uses is based on personal experience, social construction, and perhaps even a result of evolution and its impact on our brain structure.

Often economists, and all model users, are asking for people to believe the practitioner with regards to ideas/theory that defies “common sense” (Culler, 2011) – in these cases the burden of proof is actually on the practitioner. Common sense is the result of some inherent model based on the body of knowledge of the “public” community, and as a result the relation between the common sense models and economists models points to the path we have to look at in order to become more persuasive with the public at large.

Of course, economists already recognise this. As a result of all this, economists already do use a series of metaphors and analogies to try to explain economic ideas! There is no doubt that many economist will admit to describing the causal process involved for a given relationship using analogies they believe people will understand. When creating an analogy, economists face a “clarity-truth” trade-off where they feel they must surrender some part of the consistency or truth of an argument in order to make it clearer – or to fit within the given time constraints.

But to pick an appropriate trade-off we need to think about the way folk-economists use economic analogies in updating their beliefs. We will assume a simple extension on the (Rubin, 2003) model, and simply state that folk economists will take a metaphor or analogy and make it an archetypical relationship for understanding related issues. Given this, what do economists need to keep in mind when creating these stories, which are ultimately translated into archetypical relationships.

Facing the clarity-truth trade-off

As with everything in economics, the way we understand this all depends on the way we view assumptions. When a tarot card reader discusses something, or when an economist paints an analogy, a number of assumptions are made. Here it is important to distinguish between two types of assumptions, core assumptions and peripheral assumptions.

These can be defined as follows (Maki, Reorienting the assumptions issue, 2004) ^{xiv}:

Core assumptions: Assumptions pertaining to the underlying cause of a phenomenon.

Peripheral assumptions: Assumptions separate from the underlying cause of the phenomenon – generally these assumptions are made to make the result or regularity clearer (eg simplifying assumptions).

Given this, we can investigate the (Rubin, 2003) result in more detail. According to Rubin's view of folk economics, there is a push towards "zero-sum games" among the uninitiated – compared to the positive-sum games, and potential pareto improvements economists often discuss. The lack of scope for incentives, and focus towards redistribution explains why non-economists come up with different results. In this case, all we need to do is what we are doing right now – obsess about production and incentives, and limit our discussions of distribution.

This leads Rubin to note ^{xv}:

We need not only convince listeners or readers that a particular proposal is efficient, we must first convince them that there are efficiency differences between proposals.

Here Rubin states that folk economists refuse to accept the idea of positive sum games, and economists are forced to make that case prior to arguing policy on other merits.

In the language of our archetypes, and using the argument (Rubin, 2003) makes, our minds and understanding of social interactions evolved in a time where there were many zero sum games. As a result, we are equipped with an archetypical view of market interaction which we apply to social situations. If we change the body of knowledge of individuals, by getting them to understand trade-offs and thereby changing the archetype/set of assumptions they make about trade, then we are better off!

In the context Rubin describes, and the evidence Rubin pulls together, this is all well and good. Although I'm not sure the evolutionary argument is cut and dry, it is compelling to think that efficiency is the sort of concept that needs to be taught, rather than being self-evident.

However, in a more general sense of economic discussion, we require a much more nuanced view. Rubin's example had only a single archetype, a single set of assumptions about the state of the world, and these factors were "given" externally from the social actions of economists.

The nature of the games that are played within society are a product of the inherent assumptions we make about the underlying factors and drivers. Rather than just looking at a view of positive vs zero sum games, we should be asking what inherent assumptions people are making with a specific argument, making their assumptions clear, and then discussing why they may be inappropriate.

Furthermore, in Rubin's description of folk economics, we have individuals with zero training in, and no predilection towards, the types of arguments economists put together. Instead when persuading the public we are faced with individuals that have varying degrees of training, and have invested in understanding different elements of allocation and the existence of scarcity when looking at the society around them. There are people who understand incentives who are still unpersuaded by arguments that convince most economists!

Instead I argue that the difference between how economists view an argument, and how folk-economists view an economics argument, has to do with how assumptions are used. *Folk economists see the assumptions at some level of aggregation, and have an inherent model. But they do not separate core and peripheral assumptions, instead lumping them into easier to work with archetypical relationship.* Due to this inherent contradictions in these explanations can't be spotted.

I would note that the idea that folk economists work with zero sum games, while economists work with positive sum games is a subset of this – given that the nature of the social game/situation at hand depends on a series of inherent assumptions.

However, it also extends the idea by admitting that those without expertise in a field will have a lack of clarity about what constitutes a core or a peripheral assumption – between the assumptions that drive the result (causal links) and those that do not.

Folk economists accept models of common sense, based on an often implicit set of assumptions – often without a recognition of which assumptions are fundamentally true or false, core or peripheral. The elements folk economists use are forms of broad archetypical relationship between elements, which are subject to these unobserved assumptions. An individual is hardly going to be able appropriately reduce down their understating to constituent parts and test assumptions about the economy, or even markets they are uninvolved in, and as a result this is understandable and reasonable.

Economists then appear and make claims they often realise are “counterintuitive”. The exporter knows that a lower exchange rate will increase their returns and see them hire more staff, so they take that and assume that it will hold for the economy as a whole.

Given economists are trying to explain counterintuitive phenomenon to the public, the burden of proof falls on the economist. And as a result, the models used for economic communication need to be based on the idea that the burden of proof and the weight of evidence must fall on their shoulders.

In that case, it is necessary that models of economic communication are sufficiently *generalisable* – the conclusions of folk economists must be able to be explained given a set of assumptions, within the framework/model of an economist trying to communicate. Given that, the economist can then argue why the assumptions required for that conclusion are unreasonable, and use that as a basis to explain their counterintuitive results.

Economists need to create analogies that can capture the fallacies and questions of folk economists clearly.

It isn't all about explaining one phenomenon

If the idea of create models of communication that allow for both the economists argument, and the argument of folk economists, to make assumptions transparent was the sole point I was trying to make, the discussion of tarot cards and archetypes would have been excessive. However, there are two other issues.

When economists create these analogies which will be taken as archetypes, the goal shouldn't just be trying to figure out "what assumptions determine folk economists' conclusions" and show that they are inappropriate. We also have to ask how our own analogies stack up to:

1. Direct criticism: How do we move our argument back a layer, when a non-economist disagrees with a "peripheral" assumption
2. The consistency of assumptions across areas of interest: How does our analogy stack up when the question of interest changes?

When it comes to direct criticism of the issue at hand, an economist just needs a clear idea of what is a "core" assumption and what is a "peripheral" assumption for the present argument. From there, we can remove peripheral assumptions to make an explanation less "clear" – in terms of more cognitively costly to understand. The clarity-truth trade-off only exists in terms of our peripheral assumptions, and even then only in so far as non-economists cannot tell if these are core or peripheral assumptions. The solution here is to either leave the assumption in, and be ready to face a question about removing it, or to find an assumption to replace it that a folk economist will "know" is peripheral.

Essentially, if we have built a communicative model of a specific question we should clearly know what our core and peripheral assumptions are – and have a clear understanding of how to "*peel back*" peripheral assumptions if we face additional questions. And to be clear that non-economists won't recognise what assumptions are core or peripheral – but since they are criticising them, they are indicating a willingness to enter debate, and therefore a willingness to try to understand the result absent of some simplifying assumptions. A good analogy will create an archetype that allows for peripheral assumptions to be "peeled back"

This process of choosing the right peripheral assumptions, then knowing how to remove them as questions are raised, takes us along the margin of the clarity-truth trade-off – and we can only do that sensibly, when the initial archetypal relationship we create is appropriate for the question at hand.

The second issue of consistency of assumptions across areas of interest is significantly more difficult – especially since economic argument often relies on "short stout links" rather than an overarching general theory (McCloskey D. N., *The Rhetoric of Economics*, 1998). However, this is an important issue to keep in mind – as it is an area where some of the most dangerous confusion comes about.

Often there is an easy explanation to give, which is appropriate for the data at hand, the period of time we are looking in, and the set of choices we are looking at. Here for a given question, the explanation that an economist gives involves a set of core assumptions and peripheral assumptions, and the nature of these assumptions mainly holds in that context.

But if an economist is suddenly asking a different question, that involves many of the same underlying variables and data, the assumptions that are termed core assumptions and the assumptions that are peripheral may well be different.

Why does this matter? Because an analogy that is perfectly useful in one circumstance may be very inappropriate in another circumstance. As a result of the analogy being used previously, and incorporated by a folk economist (who cannot identify the difference between core and peripheral assumptions, let alone how these have changed due to the situation), a folk economist may try to apply it to the new situation.

In this context we need to be mindful that our analogies get formed into fixed archetypes, which influence the body of knowledge of folk economists. If an economist's explanation is accepted it will be used outside of that single question.

The implied inconsistency or incompleteness of explanations frustrates many folk economists. This is what leads to statements like: Why did economists say the exchange rate matters for inflation, and then say that inflation targeting has nothing to do with why the dollar has been high/low for so long? And in the end, this makes economists' future arguments about outcomes less persuasive.

In order to deal with such a situation, economists need to start off by looking more carefully at our core assumptions as a whole. There are core assumptions for all explanations, assumptions that make up the core of the argument for some explanations, and assumptions that are always peripheral.

Let us term assumptions that are always core to economic explanations constituent core assumptions.

Constituent core assumptions: Assumptions that are required for all the models that economists build for explanation and understanding in the area of that broad discipline.

This is equivalent to the theoretical hard core of a discipline. In economic communication, our equivalent of archetypes are:

Core archetypes: Ontological elements of economic discussions with folk economists that are built up of the full set of constituent core assumptions and the relationships between these assumptions.

Now there are obvious archetypes in economics eg the production function, individual preferences. Given these archetypes offer a relatively honest appraisal of the views of economists, in an ideal (non-existent) world they should provide a clear part of the way we describe issues to non-economists.

A potential subset of our core archetypes will always just be our constituent core assumptions – an individual assumption of this type is just the point where we cannot reduce our argument about that element any further. However, being able to tie core assumptions together into easier to understand core archetypes has value.

If we could discuss the results of economic science, and thereby the trade-offs involved, quickly and simply using core archetypes we would have no problem. The public would use these archetypes

when they decide to think about the issues themselves, and they would only then disagree with conclusions if they disagreed with some inherent normative judgments that are made about the associated trade-off! This would be ideal.

However, this is far from realistic. Answering an individual question often requires other core assumptions to be made on top of core constituent assumptions. And this immediately creates potential issues given that what may be a core assumption in one circumstance may be an inappropriate assumption in another sense – and folk economists cannot differentiate between these.

Furthermore, peripheral assumptions are necessary. Often the discussion, and the archetypes that folk economists will pull out of it, have to involve peripheral assumptions in order to be persuasive, understandable, and deliverable in the small amount of time the economist has to make his case. In this way the archetypes that are actually developed through economic communication, and thereby used by folk economists are:

Economic archetype: A description of relationships, tendencies, and the relevant ontological elements that a folk economist takes on board. These are built up by a set of core archetypes combined with core assumptions and appropriate peripheral assumptions.

While this is all well and good for explaining the links for a single question, when the question changes, the folk economist still has the archetype to explain. Economist explanation sees some core and peripheral assumptions “change places” which can potentially make the archetype inappropriate. The solutions are:

1. Spend time explaining why (which requires a significant time investment – this is akin to the (Rubin, 2003) view on teaching economics).
2. Make archetypes that take this into account to start with! Look more broadly across set of areas of interest, before painting archetypical explanation!

This is equivalent to our earlier discussion about tarot card readers, and how they have to be careful about the way their cards and the position of the cards are interpreted. The mechanism of communication can be, and will be, misinterpreted by folk theorist, and as a result this is a risk that has to be consciously mitigated by the economist making the analogy.

Peripheral assumptions become very important when we view economic communication in this light. They are not merely a way of simplifying arguments and isolating what is important for a given question. They can also be used to fundamentally restructure the archetypical relationship that folk economists may try to use – *making it inapplicable outside of this specific question!* The example we get onto later in this paper does just this.

Note that this method also makes it is clear that why folk economists have been more willing to discount scientific economists following the crisis. Folk economists are using economic archetypes to help plan for the future. When the “predictions” of economists appear to fail folk economists will reduce the weight they put on the archetypes delivered by economists. Adding to this, the internet has provided a series of “other” archetypes for interested readers to pick up on – increasing competition for the archetypical relationships described by scientific economists at exactly the same time that scientific economist appear to have been wrong^{xvi}.

In this type of environment spending time trying to ensure that the descriptions you give, and the model you use to provide this description, don't suggest strange things when the description is used in other contexts is important.

What does all this suggest?

Here we have six different lessons to take out from this exercise when we think about economic communication:

1. Any framework for explanation needs to be able to build a generalizable verbal model that includes the "common sense" arguments of folk economics – so that the ways the assumptions required are unsatisfactory can be explained.
2. Any explanation should have clear layers of peripheral assumptions which can be peeled back – peripheral assumption offer the "clarity-truth" trade-off that both economists and non-economists perceive.
3. Any explanation cannot try to apply a "clarity-truth" trade-off to core assumptions. Core assumptions are a non-negotiable part of a description. (Note: A peripheral assumption which changes the clarity of a core assumption is fine)
4. The essential nature of constituent core assumptions over a broad range of economic phenomenon means that economists need to be mindful and honest that these make up the base of any explanation.
5. Folk economists do not differentiate between core and peripheral assumptions, and the explanation provided for a question will instead be taken as an "archetypical relationship" for the elements involved. This needs to be taken into account when a verbal model is delivered.
6. Archetypical relationships will broadly enter the "body of knowledge" of folk economists if they are persuasive. As a result, the way these relationships hold up in the face of an array of different economic questions should be considered.

All six of these principles are fundamentally built on the types of assumptions economists make when explaining an example – and are due to the fact that, unless we are clear about it, the public often does not see the distinction between assumptions that are core to the result and peripheral assumptions.

Example

One issue that seems to vex almost everyone I've talked to who has to communicate about Reserve Bank policy is the idea of the "output gap" and the dynamic process that central bank policy innovations have on the economy.

The New Keynesian synthesis created a fairly strong (even post-crisis) consensus on what this idea represents – even if there is a lot of debate around what the size of the output gap is!

Given the complications of the idea, the nuances involved with understanding it, and the debate that exists around the practical size of the output gap (and its corresponding impact on policy) no-one really knows how to handle it. Journalists generally have a grip on the idea, but even with their talents at communicating ideas they normally leave this concept to the side.

Personally, I'd seen it as an idea that should be left out of the public vernacular myself. That is until I read a description^{xvii} by Shamubeel Eaqub comparing monetary policy to cooking porridge. In this example, the lower the interest rate, the higher the temperature on the element, and the more risk you are going to overheat the porridge. The Reserve Bank merely tries to keep monetary policy in the "Goldilocks zone" where the temperature is just right.

Why is this description good? Yes it is clear and easy to understand as a metaphor. And it contains clear core assumptions, and some peripheral assumptions I think are clearly not meant to be realistic (the economy is not porridge). But there are other reasons it is good.

It is good because it doesn't unnecessarily make peripheral assumptions that can be misinterpreted when looking at other issues – eg it doesn't claim anything about the exchange rate, the level of debt and assets, or the structure of the economy, factors that are getting unnecessarily tied up with monetary policy at present. On top of this, it illustrates a very hard point to get across – the central bank is setting an interest rate that is determined by underlying factors in the economy (the factors determining what heat we need to keep our porridge at the right temperature). In that way, it won't provide misinformation if interpreted in different circumstances.

Furthermore it is good because, it can easily have layers peeled back to meet concerns and criticism. For example, someone may complain that the economy is not, in fact, a bowl of porridge. Porridge is an archetypical description in this context, as it involves the core mechanics of the "output gap" idea but is covered in peripheral assumptions so as to make it unrecognisable but easy to understand. We can easily peel back the description of the economy as a bowl of porridge, and switch to another archetype with fewer underlying peripheral assumptions – that of a NAIRU or a story about a factory running below or above capacity.

If the non-economist has further questions this is all well and good, they just head further down the rabbit hole of disappearing peripheral assumptions, and more technically complicated answers.

Finally it is good because when faced with the question "what is the point of this active monetary policy and interest rate movement" it clearly articulates what the point is – to smooth economic activity, by minimising the output gap. Combined with the role it gives to interest rates (being determined by the way the porridge has to heat up to an optimal temperature) it gives a clear feeling to people about how this all works. From here I can imagine people asking "what determines the way porridge heats up, or what the optimal temperature for porridge is", allowing the metaphor to be extended.

However, someone can still just leave the analogy as is, and keep that as their prior view, as the archetypical view they hold, on how the process works.

Conclusion

Our goal here has been to build up an understanding of one element around how the arguments of economists interact with folk economists? We took this lesson from looking at tarot card reading, and recognising that individuals try to take analogies and turn them into fixed archetypes.

Often economist's arguments aim to defy folk economist's common sense, and therefore it is understandable why they would in turn place the burden of proof on economists for showing them something. Although economic science does provide much of this type of proof, folk economists do

need to be persuaded that economists are not just making it all up. Given that the discipline can't show off massive predictive success, or the physical outputs created by the physical sciences, this implies that clear communication is all the more important.

Both economists and tarot card readers run into the issue of "consistency". Often an economist's interpretation of the impact on a variable, or a tarot card readers interpretation of a card, is seen as "fixed" across all models/questions - even though this is inappropriate in both situations. Given that non-specialists, by definition, cannot differentiate between core and peripheral assumptions this is unavoidable – however, it is an issue that economists must be cautious about when discussing issues.

Overall, the key attributes of a good model of "economic communication" should involve a set of constituent core assumptions over a broad range of economic areas, a recognition of how peripheral and other core assumptions can be taken out of context when the question changes, a clear idea of how to "peel back" peripheral assumptions for a given explanation, and an ability to fit "folk economics" arguments within the same framework – pointing out which assumptions are inappropriate. We've also noted that economists need to be clear that the explanations they provide to the public can be taken as underlying archetypes which in turn will be inappropriately applied to other phenomenon – as a result, explanations that reduce the ability to do this are preferable.

Contrary to the general view that economists should be trusted as experts, the fact economics aims to often argue "counter-intuitive" results places the burden of proof, and the burden of explanation, on our shoulders. The six principles we've defined here need to be considered as part of how an economist tries to build up a persuasive case about economic outcomes and trade-offs to folk economists.

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ⁱ Although there is a conference on the issue at the University of Kassel in Germany, on the 2nd of July 2013: <http://www.uni-kassel.de/fb07/institute/ivwl/first-kassel-workshop-on-folk-economics.html>

ⁱⁱ (McCloskey D. N., *Storytelling in Economics*, 1990), pp 12

ⁱⁱⁱ (McCloskey D. N., *Storytelling in Economics*, 1990), pp 12

^{iv} <http://plato.stanford.edu/entries/rationalism-empiricism/>

^v <https://twitter.com/felixmarwick/status/296409135384256512>

^{vi} (Hyland, 2008), pp 7

^{vii} For the sake of this article, we will assume economic science is methodologically sound, and scientifically progressive. Disagreement with this assumption will involve asking how persuasive we should try to make economic arguments – and as a result, this is an issue we leave to the side for this piece.

^{viii} http://www.academia.edu/442956/Integrating_Tarot_Readings_Into_Counselling_and_Psychotherapy

^{ix} I would note here that many people who read tarot cards see archetypes as non-representable factors that describe underlying elements of the individual. A tarot card in this context provide an “archetypical image” which can be used to get information from the individual. I am not using it in this context – as we are focused on communication, and I would like to leave the general “scientific” model to be abstract in this context. Instead archetype is being used as a “typical type”.

^x Essentially, I see metaphor and archetype taking the same general form – the distinction is about whether we can reduce the model into assumptions. An economist will reduce the model, a non-economist will not, and the difference in term is meant to capture this.

^{xi} Note that many tarot card readers rely on the idea of a “collective unconscious” to justify the implicit choice of archetypical relationships. Collective unconscious in this context is just an admission that images may stir up the same feeling or relation between different individuals – Carl Jung was clear that the concept was still methodologically individualistic. In this way it has some consistency with a broader “body of knowledge” which is the context we are using it here. It is not consistent with many of the more holistic interpretations that are given to it by some.

^{xii} This is an important difference with the way an “archetype” is view in Jungian analytical psychology – we are not using it in that context. It has been pointed out to me that in the context of Jungian analytical psychology an archetype is unobservable, and we only get information from archetypical images. Here, the appropriate archetypes depend fundamentally on the scientific explanation in question – and the additional simplifying assumptions used to aid communication.

^{xiii} Many tarot card readers, in a practical sense, DO presuppose an explanation – but we are interested in the method of delivery, not the justification for the content they put in!

^{xiv} <http://www.helsinki.fi/tint/maki/materials/Reorienting%20the%20assumptions%20issue.pdf>

^{xv} (Rubin, 2003), pp 167

^{xvi} I appreciate that economics tends to avoid forecasting – the focus on short-stout links is not amiable to broad predictions, and does not pretend to be. However, it is understandable how the public may feel differently!

^{xvii} <http://www.stuff.co.nz/business/money/7031073/Its-the-economy-stupid>