

Cultural Evolution, Memetics, Politics and the Media

Interview with Agner Fog by Ricardo Lopez

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[This interview on YouTube](#)

Ricardo (00:00:00):

Hello, everybody. Welcome to a new episode of [The Dissenter](#). I am your host, Ricardo Lopez, and today I am joined for a second time by Dr. Agner Fog. He is an associate professor of computer science at the Technical University of Denmark. Last time we talked about his book, *Warlike and Peaceful Societies*, and I am going to leave a link to it down below. Today we are going to talk about cultural selection/cultural evolution. So, Dr. Fog, thank you again for taking the time to come on the show. it is a pleasure for everyone.

Agner (00:00:40):

Thank you, it is my pleasure.

Ricardo (00:00:41):

What is really cultural evolution? I guess that when people coined the term cultural evolution, they were at least to some extent establishing a parallel with biological or genetic evolution. But are they similar to one another or are they different? In what ways?

Agner (00:01:15):

There is a lot of controversy about whether cultural evolution is a thing or not, because there are obvious parallels with biological evolution, but there are also many differences. Sometimes people assume that they are the same process and they make false conclusions. But biological evolution is about selection. It is the survival of the fittest, as people say. Selection is the thing that is driving the process in a direction that nobody is actually controlling. It goes automatically. Cultural change also involves a lot of selection processes. The messages we read in the newspapers are carefully selected and this kind of selection has a lot of effects on the culture and the political climate. There is obviously a lot of selection going on. Sometimes there are things that can be explained well by a selection process, like things that are not planned but happen anyway. We like to think that everything is planned, but sometimes it is not. Things are happening that we didn't expect or didn't plan. So, the concept of selection actually has a place here. This is an important analogy because it explains things that are not planned.

Ricardo (00:03:03):

I understand. I find that you are fond of memetics as a theory for cultural evolution. There are several theories out there. There is a memetics, there is the California school of cultural evolution coming from people like Richard Boyd and Peter Richerson and Joseph Henrich and others. And we also have cultural attraction theory by Dan Sperber Hugo Mercier and others. So why do you think that memetics is a good theory to approach cultural evolution?

Agner (00:03:51):

Well, it is a good theory for explaining some things, and it is a very bad theory for other topics. I am not saying that this is a good theory for everything, but it is very good at explaining certain things. And there are also certain things where it is out of place, because the theory of memetics is focusing on cultural units that we call memes. A meme is a unit of culture. It can be an idea. It can be an invention. It can be a news message. It can be a melody. These are selected. So this can explain certain things, but it has a limitation because we need a unit that can be selected, and not everything can be explained as units. Later we can talk about other things that do not fit into this theory, but it is a nice place to start to get an idea of what cultural selection is.

Ricardo (00:05:10):

Nowadays with the internet, people use the term *meme* that was coined by Richard Dawkins back in the seventies in his book *The Selfish Gene*. Is there any parallel between a meme in memetics or cultural evolution, and the memes that people use on the internet?

Agner (00:05:41):

Yes, certainly. It is the same word and it comes from Dawkins. We can say that the theory of memes has become more and more relevant now that there are so many memes circulating on the internet. People talk about things going viral, like it is a virus. That is also a way of seeing it, and economists talk about viral marketing. These are certainly concepts that influence our everyday life and have gone into everyday language. So I think it is useful to look at it.

Ricardo (00:06:22):

I guess that one of the similarities that memetics has to biological evolution is the fact that in biological evolution, we have mutation and in memetics we have what we could call innovation. Is that right?

Agner (00:06:44):

Yes, exactly. This is an analogy, but mutations are usually random. They happen for no purpose. It is just an error in the genes. But innovation is sometimes intelligent. It is directed towards a specific goal, towards solving a particular problem or planning something. Like the innovation of a car, that is something very complex. It needs many different components, which could not just occur randomly. There has to be some intelligence in putting all these components together and make a functioning car. So that is why cultural evolution, or maybe memetic evolution as you may call it, is more efficient than biological evolution. It is faster because sometimes it is planned and goal-directed. And sometimes it is not.

Ricardo (00:07:51):

What are the things that make memes successful? In cultural evolutionary theory, the one that was developed by Boyd and Richerson and others, they have content biases, context biases, frequency dependent biases. Do we have anything like that in memetics?

Agner (00:08:27):

Yes, indeed. People tend to select or prefer ideas that they find useful. If a car is useful, then somebody else will copy the idea and make other cars that are maybe a little different and then it evolves, or the idea evolves. Things like a story on the social media, for example, is also a meme. They are often selected because of our psychology. They appeal to our psychology. There is a writer, Richard Brodie, who wrote the book *Virus of the Mind*. He has focused very much on the psychology of why we choose certain stories and not other stories. He described that the most effective memes are pushing our

emotional buttons. We have buttons for things that we pay attention to. Some of the strongest emotional buttons are something like danger. Danger is important for our survival, so we have evolved to pay attention to danger. Food, of course, is also important. And sex is something that always catches people's attention. And protection of children is also something that has always been important for our survival and our procreation. That is also something we pay attention to. Richard Brodie found that the memes that are spreading most effectively are the ones that are pushing the most emotional buttons. We are seeing stories circulating on the social media that are pushing all the emotional buttons. And people don't care very much about whether these stories are true or false. There is a lot of false news that people still share on Facebook because it is pushing their emotional buttons. That is a very important criterion for what is an effective meme.

Ricardo (00:10:47):

What about the application of memetics to understanding the spread of religious ideas? This is one of the things that, for example, Dawkins focus a lot on. Is there any way that memetics can help us understand that?

Agner (00:11:13):

Yes and no. Some of the people who were starting memetics theory, especially the pioneers, were mostly biologists and geneticists. They focused very much on the analogy with genes and genetics. They made complicated mathematical equations for how a meme can spread. These mathematical equations look nice. But there was just this problem that they did not have any real-world examples that fit their models. So many people rejected this theory or found it just theory and not very useful, because they focus too much on the analogy and less on understanding actual social processes and cultural processes.

Ricardo (00:12:11):

By the way, is the analogy with the virus applied to memes useful to understand how memes work and are transmitted between people? For example, there is a theory of epistemic vigilance that I think was put forth by Hugo Mercier and Dan Sperber and others. Basically, they say that people are not completely permeable to all sorts of ideas. They already have a sort of understanding of how the world works, when they are already part of a particular tribe with particular ideas. They do not accept all kinds of information indiscriminately. Viruses simply infect people in certain circumstances and they replicate themselves and transmit themselves between people. So, to what extent is there an analogy with the virus?

Agner (00:13:36):

I think the analogy with the virus is useful when we are talking about a lot of fake news that are circulating. But people can be immune to the virus, you may say, if it does not fit into their worldview. Maybe we can talk about this later. A biological virus is something that it is not a living organism. It cannot copy itself, but it can affect our body and use our body or our cells to make copies of itself. And we also have a computer virus. A computer virus is not a living thing, but it can affect your computer and use your computer to make copies and spread copies of itself. We can say the same with a meme like a story that is circulating. People pass on the story to others. The analogy is that the story is not a living thing. It does not have a will, but it has the property that it can penetrate our mind and motivate us to pass on the story to others. It is a good analogy in some cases, like a belief that is spreading. The memes that are spreading the most are the ones that are pushing our emotional buttons. It is things like talking about fear and danger, and protecting children, and about sex. Some of the stories that are circulated the most are the stories that are pushing our emotional buttons. It is important to realize that the truth of the story does not enter the equation. The effectiveness of a meme depends on its emotional impact

on people. And whether it is true or false has no effect, as long as people are not able to fact check. If people have no easy access to a proof or disproof, then they may pass on the story and believe it is true. But whether it is true or false is not part of the equation. True beliefs and false beliefs can spread equally well. And if you talk about a religion, like Dawkins did, the meme theory can explain why certain religious beliefs are spreading, but it cannot tell whether these beliefs are true or false. We have a theory that can explain why false beliefs are spreading, but true beliefs can be spreading all the same by the same mechanism. In theory we cannot tell from meme theory whether a certain belief is true or false.

Ricardo (00:16:51):

You mentioned that one of the things that memetics can explain well is the selection of stories. And there are different stories that are appreciated in different times. Could you give us an example of that?

Agner (00:17:13):

Yes, it depends on people's worldview and people's understanding of the world and what topics are on the agenda in society in general. Some stories are selected and propagated at certain times and other stories in other times. A good example is stories about sex because, as I told you, sex is an emotional button that we pay attention to. We like stories about sex, and the mass media profit from writing or telling about sex. But the mores of the time are defining what kind of stories are permissible and what stories are not permissible. A hundred years ago, the puritan movements were dominating the public morals. That meant you were not allowed to talk about sex unless you were warning about the dangers of sex. The media just wanted to talk about sex. They were not allowed to write positive stories about sex, so they wrote negative stories about sex. But still, it is selling! It would still sell newspapers and people would still listen to it.

One good example is one of the first novels about homosexuality. It is *Death in Venice* by Thomas Mann. It tells about a man with homosexual fantasies. The man dies in the end because it was the moral convention of the time that the sinner should die in the end. That was the only excuse for writing about homosexuality. The author probably just wanted to write about his own feelings and his own fantasies and put it into a novel. I think he had no intention about warning against these dangerous thoughts, but that was the only possibility for writing about homosexuality at that time. And so he wrote a moral story about a man with homosexual fantasies who died in the end, because that was the only possibility he had for writing about this topic.

And then, 50 years later in the 1960s and 70s, we had sexual liberation. And suddenly it was permissible to talk about the positive side of sex. The media were full of praise about the pleasures of sex and described every possible variation they could find, because that would give them an excuse for writing about sex. So, we had a sexual revolution with sexual liberation of all kinds of sexual variants, and every imaginable kind of sexuality got described. A lot of different sexual minorities got liberated. Today the pendulum has swung a little to the opposite side again. Now it is #MeToo that is dominating the agenda, and suddenly a lot of women come forward and remember things that happened many years ago that by today's standard would be sexual harassment. And then all the media are full of that, and it has consequences. High-ranking men are accused of something they did long ago and they lose their positions. So now it is a different agenda, but it is a selection of stories. The media that are publishing these stories may have no agenda. They may not have any intention to change society, but the morals of the time are defining what kind of stories are permitted to tell. This selection process is amplifying any tendencies in a society about what you can say and what you cannot say. So that is an example of the

selection of stores. The ones that do the selection, the mass media, may not have any intention of changing the society or the politics in any way, but that is what they are doing.

Ricardo (00:21:58):

What about witch hunts and moral panics? That is another topic, and there are some interesting examples about that. A recent one, I think, is QAnon.

Agner (00:22:20):

Yes, that is also something you can think about as selection. A witch hunt is something that is spreading fear and danger. In the original witch hunts that happened in the early modern times, people believed there were satanic people that made dangerous spells and were riding on broomsticks and kissing the devil and all kinds of weird things. But these stories were selected because they pushed our emotional buttons. The church promoted the stories because they felt their influence was declining. This kind of stories were spreading, and it had huge consequences. A lot of innocent people were burned on the fire, accused of being witches. The stories died out because people found out it was not true and nobody were riding on broomsticks. It was all false. But these moral panics come up from time to time and they have a huge impact on the political climate.

For example, the stories came again in the 1980s. People believed that there were satanic cults who abused children sexually and physically and ate them or sacrificed them to a devil. That was in the 1980s. We like to think of this as a modern time where people were well-informed, but still these kinds of stories could circulate and innocent people went to jail and children were separated from their parents on false charges. And now the same stories, or very similar stories, are circulated again by the mysterious movement QAnon. When I first heard these stories about satanic sex and pedophiles abusing children and controlling the world and stuff like that, I immediately thought, this is a strong meme. Quite probably it is a constructed meme, deliberately constructed to push people's buttons and to be spread. Nobody knows who is behind this. Maybe they have political agendas, we don't know, but these are certainly strong memes because they are pushing exactly all the most sensitive psychological buttons. These stories can spread and they can have a huge impact on the political agenda.

Terrorism is also a kind of moral panic. We have had terrorism for many years, but after 2001 it suddenly made the headlines of all the media. It is spreading like a panic and politicians are reacting to it. It makes the society more authoritarian and make people support authoritarian leaders. If you remember my first interview, I talked about how fear and danger can make people authoritarian and make them support a leader. Some leaders are actually using this and spreading fear and fabricating danger in order to make people support their leaders and maybe push the political climate in a less democratic way.

Sometimes these panics or witch hunts are controlled by somebody, and sometimes it is just out of control. The media are going with self-amplifying stories, and nobody is controlling it. But it certainly has a strong impact on political life. That is why I think it is important in the context of cultural selection. There is a selection process here that is driving the culture and the political climate in one way or another. Sometimes somebody is controlling it, but quite often nobody is in control. It just happens. Things are amplifying themselves and going out of control.

Ricardo (00:27:13):

At the beginning you said that there are some controversies, for example discussions around what is the unit of selection in memetics or even in cultural evolution more generally. So why would you say that memetics is out of fashion nowadays?

Agner (00:27:47):

There was a *Journal of Memetics* and a lot of studies. It died out and the journal does not exist anymore. I think that the discussion has been derailed by endless discussions over what is the unit of selection? What is a meme? Is it analogous to a gene? Is it a fixed unit? Can it be divided? Is it a combination of units? Is it a unit at all? How is it transmitted? Is it like a gene that depends on the birth and death of people or does it just transmit to anybody? Is everything a meme? Is a religion one meme or a combination of memes? And what about social structure? Is democracy a meme? It is not carried by one person, but by a whole society. Is it still a meme?

All these discussions were really focused on whether it is analogous to a gene and whether you can make mathematical formulas for it. I think these discussions are somehow taking the focus away from the social and cultural phenomena that it is supposed to describe. I think it is more interesting to focus on what are the criteria for making a meme selected? What is selected and what is not selected? I think that is a more fruitful way of seeing it. Taking it more into the real social studies and culture, and moving a little away from the mathematics of genes. There is no universal answer to what is a meme or what are the processes, because no model fits all social phenomena. But still, the process of selection is an important concept because it can explain how things are changing and why things are changing in ways that we maybe did not predict.

Ricardo (00:30:20):

There are also concepts like method of adaptation, evolvability, vicarious selection. Could you explain them?

Agner (00:30:36):

Yes, it is the idea that cultural evolution somehow is an amplification of biological evolution. The capacity for culture is our ability to learn from others and to pass on culture or memes. It is evolved by biological evolution because it allows us to adapt faster to a new environment. So, we can say that the cultural selection is vicarious for the biological evolution in the sense that it goes in approximately the same direction. It increases our chance of survival and it is much faster and more efficient because it can be intelligent and goal-directed. It is faster and it is amplifying biological selection. This gives us humans a big advantage over animals, because it allows us to adapt further and develop things that could not have been developed by biological evolution. But we should not be fooled by this and say that cultural evolution always goes in the same direction, because there are cultural traits that are selected even though they are not increasing biological fitness. A good example is the religious tradition of celibacy. A celibate priest or nun have no children, so they have no biological fitness. But still the tradition of celibacy is spreading because they have cultural influence. A priest has a lot of cultural influence, so he can spread his ideas to his followers. The idea of celibacy can propagate and spread in society, even though it does not increase biological fitness. The cultural evolution does not just replace biological evolution – to some degree it does enhance biological evolution – but it does not necessarily go in exactly the same direction.

Ricardo (00:33:06):

What about understanding how science and the different branches of science evolve? Can we apply this knowledge to understand how that works, and maybe how certain fields that we could say are pseudo-scientific or even non-scientific work?

Agner (00:33:30):

Yes, I think this is a good application of cultural selection theory because scientific theories are also memes that can be selected. The famous philosopher Karl Popper invented what we call the principle of falsification. This is a criterion for whether something is science. A scientific theory has to be a testable. If you cannot test a theory, it is not scientific. If I have a theory that A leads to B, and somebody makes an experiment showing that A does not lead to B, then there is something wrong with my theory. Then I have to refine my theory, or somebody has to come up with a better theory. This principle, which is called the principle of falsification, is widely accepted as a criterion for science.

If we want to make a science of culture or a science of social structure, then our social world is so complex that you can find examples of anything. There are so many things happening and things interacting in so many different ways, that you can find examples of anything. If I come up with a theory of something happening or some causal effect in social systems, then somebody else can say, oh, it does not fit this example. Your theory must be wrong. This is actually a naive way of looking at the falsification principle, because you can reject any theory and then there is nothing left. What really happens in practice is that if you have a theory and you have an observation that does not fit the theory, then you have to modify the theory and come up with some additional hypothesis to make the theory still work, until maybe somebody comes up with a better theory. But as long as you don't have a better theory, you don't reject it because then you have nothing to work with. You modify the theory and try to improve it unless somebody can come up with a better theory. But in the social sciences, there is much resistance to the idea of cause and effect because they want to believe that everything is controlled by intelligent people deciding how things should go, and free will and stuff. Whenever somebody comes up with a theory, then somebody else will come up with an example that doesn't fit the theory and then the theory is rejected. When all the testable theories are rejected, what have we left? We have no cultural science left. We only have interpretations and categorizations and stuff like that.

So, the social sciences have developed in a way that is less and less scientific because all the scientific theories are falsified and then there is nothing left. If you have no way of testing theories, all we have left is theories that cannot be tested, like interpretations or categories or ideas of what goes on in people's minds and things like that. How do we choose the best theories if they cannot be tested? What I see is happening in a lot of the social studies is that when theories cannot be tested, they are selected by irrelevant criteria – most often by prestige. If you can cite some prestigious French philosopher, then your theory is more appreciated. If you can express your theory in a very elaborate and ambiguous language. If you say something ambiguous, then it is difficult to disagree because everybody can interpret it to his or her own liking. Political correctness or ideology is also an influence. The theories that people prefer are the ones that fit their ideology.

A lot of the cultural studies have evolved by this selection mechanism in a way that is less and less scientific. I know that a lot of the people you have interviewed have deplored this and called for a more scientific science of culture. Fortunately, there are more people who are working in different directions, like cultural evolution. There are big databases of cultural variables, and people make statistics and make more scientific theories out of that. So, there is a new movement going in a more scientific

direction, fortunately. But a lot of us who have been working at this for decades have been very frustrated that sociologists wouldn't listen to us.

Ricardo (00:39:32):

What are some of the main differences between genes and memes?

Agner (00:39:44):

The most important difference is that genes are selected by people dying or having children. It is birth and death that is controlling the evolution of genes. This also happens with memes, of course, if memes are transmitted from parent to child, but that is not the main mechanism. People have been led astray by focusing on people dying or having more children because of the memes they have. Of course, that is an effect, but it is not the most important effect because a meme can be transmitted from any person to any other person. With electronic media, I can transmit my memes to you, many kilometers away. You don't have to die and a new person being born for a new meme to spread. Memes are spread mainly by communication and people learning from each other.

So that is one important difference. Another difference is that cultural evolution is cumulative. We have more and more ideas. Genes are competing with each other. For example, we can have genes for blue eyes or brown eyes. These genes are competing with each other. If for some reason blue eyes are more fit than brown eyes because we see better or because the opposite sex find them more attractive, then maybe the gene for blue eyes can replace the gene for brown eyes in a certain population. So that is competition between genes. But it is not so for ideas. For example, somebody can invent a recipe for how to make blue paint, and somebody else can make a recipe for brown paint. These two recipes are not necessarily replacing each other, because we can have both recipes. We can have both blue paint and brown paint, and then we can make a better painting with more colors. So, we can have more and more colors, and we can accumulate more and more ideas or more and more recipes.

If we don't have enough capacity in our brains to remember all the recipes, then we can store them in books or computers. There is no limit to how many ideas we can accumulate, how many recipes, how many inventions we can have. We can store it all in a computer. If we need a paint for a certain weird color, we can search on our computer and find the right recipe. So cultural evolution is cumulative. It is accumulating more and more memes, more and more ideas, more and more inventions, and so on.

The cultural unit is not always a discrete unit. There are a lot of things that cannot be expressed in discrete units of information or discrete ideas, but are considered to be selected anyway. There are things that are selected, but which we cannot express in memes. This can be quantitative traits like money, for example. You can have more or less money. It is not a discrete thing – either you have money or you don't have money – you can have more or less money. And you can have more or less power, resources like food and water and land, and also for example reputation and prestige. A person can have more or less reputation or prestige. All these things give the person more influence. This is also a kind of selection. Some people have more money, some people have less money. And the people who have more money have more influence. I think we need to focus on this, also. People have not been focusing very much on this in terms of cultural selection. Yet, selection is also working on things that are not discrete units.

Ricardo (00:44:26):

You have mentioned some examples of types of selection that cannot be expressed in memes. Selection that is based on quantitative rather than qualitative traits. Are there any other good examples?

Agner (00:44:53):

Money is the most obvious example. We have something called the Matthew effect. It means that whoever is rich get richer. We are seeing this very strongly in the world today. The rich are getting incredibly rich today. A few people own as much as the poorest half of the world. There is an enormous economic inequality. This is because of the Matthew effect. Whoever has more money and more power can use their money and power to influence the system to get still more money and more power. The most powerful people can lobby the politicians to make laws that benefit them so that they can make still more money and get still more power. This is the Matthew effect, and it is a very strong selection effect, which has a huge influence on how society works today.

Ricardo (00:46:03):

What about the media? We have already touched on that a little bit, but what happens in different types of media competing amongst themselves?

Agner (00:46:17):

That is also a very important mechanism. It has important effects, which few people have actually studied well. Most of the mass media today are commercial. They depend on money, mostly from advertisers and maybe also from subscribers. They are controlled by economic market mechanisms. The media we have today are the result of the selection process of the economic markets. For example, if you have no limit to how many TV stations you can have in a country, but there is a limit to how much money advertisers will put into TV advertisements, then what happens is that if there are more TV stations sharing the same pie of advertising money, then there is less money for each TV station. And then they are forced to make poor quality. The only way they can cut down on their expenses is by lowering the quality. We get poorer and poorer quality of the news. Many people are actually mad at the TV and say there is nothing good here, it is all shit. But that is an economic process. Nobody wants a bad quality of a TV news, but that is what happens if you have unlimited economic competition. They have less money for investigative journalism, because it doesn't pay back. And there is less debate about complicated political issues because people want to hear what they agree with. A debate with people disagreeing is not very economically profitable. Political disagreements between different candidates are presented as a horse race. Now this candidate is leading the polls and now that, and what they are doing to improve their ratings. It is less about the issues. They don't go very deep into the issues and the consequences of their policies.

If the media tell a story that turns out to be false, they will not bring a disclaimer, unless they have to, because a disclaimer is not profitable. If they have told a story and later realize that the story was false, they will not say, Sorry, we were wrong, here is the right story. If somebody is accused of a serious crime and it later turns out that this person was innocent, then they will rather forget about it and talk about something else. They have harmed this innocent person because that is how economic competition works.

Quite often some newspaper or TV station say, we want to do better. We want to make serious investigative journalism and debate about complicated matters. But as long as they depend on money, they simply go out of business because it is less profitable than the ones that just make sensation, celebrity scandal, and talk about sex and violence all the time.

Ricardo (00:50:28):

Does this interfere in any way with democracy?

Agner (00:50:35):

Yes, very much. People are shaped by the information they receive from the media. We can look at the theory of social cognition or schematic thinking, the way we are digesting the news. We think in terms of schemas or certain formulas for how the world looks, because we are receiving too much information. There is an information overload. We are receiving so much information that we cannot digest it all. So we are economizing our mental capability by putting things into categories. For example, if somebody is talking about politics, we try to categorize this person as conservative or liberal or socialist. And then if you put this person into this category, it is easier to understand. We know approximately what the person is going to say. If he or she says something different, we may ignore it because it doesn't fit into the category that we have put this person into.

If we meet a person who doesn't fit into any of the categories that we already have in our mind, then most people would still try to fit the category that fits best to this person. And that means they will misunderstand what the person is saying. If we hear a story about something new that we haven't heard about before, we will try to put it into the schema that fits best that we already have in our minds, and then try to interpret it. If this schema doesn't fit very well, then we will misunderstand what is happening. Or, quite often, people will simply ignore the story saying, this is not interesting to me. I don't understand it. I don't want to listen to it.

So, the schemas we have in our minds are very much shaping the political life and our understanding of the world. And the media are shaping the schemas we have in our minds. If we have listened to a particular TV station for many years, we have adapted our minds to the schemas that are dominant in this TV station or to the news formats. We have adjusted to that. If we then listen to a very different TV station, we don't like it because it doesn't fit our schemas. We have difficulties understanding it. It requires more brain capacity to digest what it is saying. So most people just switch back to what they are used to. Even if a TV station is producing a poor quality of news, when people get used to it and get adapted to that, they will like what they are used to. This is actually dumbing down the population. The station will not present a diversity of viewpoints. They will bring whatever people like to hear. So people are confirmed by hearing the kind of news they like to hear.

On the social media, people can follow a particular news group that fit their ideas or their interests. And somebody else can follow a different group. So we have echo chambers building up. One part of the population has one kind of opinions and one kind of schemas in their mind and another population has something else. Then you have disagreements. A lot of political disagreement is caused by people having different schemas in the head. They don't understand the world in the same way, and they don't understand each other's arguments very well. This has a lot of influence on the political life. The democratic process assumes that the voters are well informed about the different candidates and their ideologies and their policies. But if you don't have any reliable media that are actually informing the public and the voters, then the democratic process is not working very well.

Ricardo (00:55:38):

You mentioned money. Are there any good examples of where money rules, for example politics or culture?

Agner (00:56:00):

Yes. Money makes the world go around. It is everywhere. The media is one example. The media are controlled by market forces, or at least the commercial media – there are not many non-commercial media left – because how can they survive without money?

When every kind of cultural event, like a concert or a football match or whatever, are paid by sponsors, then the sponsors can decide what kind of events can take place and what kind of event cannot take place. The sponsors can sometimes even dictate the rules of the game. It is more exciting for the viewers if you change the rules like this. So cultural events and sports events are very much influenced by economic market forces. The sponsors have no agenda on whether they like this or that kind of music, or this or that kind of sport, but it is all controlled by market forces. The same with websites. Many websites today are financed by advertisements. We have even seen fake news websites. They are producing all kinds of sensation and news, and the only purpose is to make clickbait, make people click on the stories and read them. The stories are just made up. They are completely false, but still they can make money on the advertisements by making outlandish claims about what is happening.

And science, also. Science is supposed to be neutral. We rely on universities for producing truth, but universities are cut down on their finances or support from the government, so they have to find sponsors who are willing to pay them to do research. The sponsors are defining what you can do research in. There will be most research in the areas that the sponsors want. It could be a medical industry. They want research in a certain disease or something. They can even ask the university to evaluate if their product is good or bad. And if the university finds that a product is not as good as they thought, then the sponsor will try to say, please don't publish this finding. Maybe they even have it in the contract that they can decide whether the results should be published or not. This is certainly influencing science. Universities are no longer independent guarantees of the truth.

Ricardo (00:59:45):

You mentioned that money rules the world. Is there any way we can say that economic mechanisms control our global society and in what instances does it manifest itself?

Agner (01:00:07):

Yes, in a lot of ways. I would like to start with the money system itself. This is an issue that has come up after the financial crisis in 2008. It has been an issue for a long time, but it has come into public discussion after that. We like to think of money as notes and coins, but most of the money that is circulating today is electronic money that is made by banks. And most of the money that is circulating comes from credit. If you loan money from the bank, then the bank is actually creating electronic money. And when your loan has to be paid back with interests, then there is something missing in the system. The loan itself was created just by putting a number into computer, but if you have to pay it back with interest, where should the interest come from?

Today we are in a situation where there is three times as much debt in the world as there is money in circulation. It sounds absurd, but all this debt comes from the compound interest of the loans that have been given, because banks can lend out more money than they have. This is quite a big issue. I don't think we have time to go into details, but if you search for *money creation* you can find a lot about it. The consequences of this are big. When there is more debt in the world than there is money, then it is almost impossible to pay back all debt. That means somebody have to go bankrupt. People lose their job and become destitute. They may not have done anything wrong or irresponsible, but it is a mathematical consequence of the money system that somebody have to go bankrupt. It can be

individual persons and families, it can be companies going bankrupt, and it can even be countries. State bankruptcy is something we have seen many times in history. A whole state can go bankrupt. And today, there are a lot of poor countries that are effectively bankrupt. They have more debt than they have money. This debt makes it possible to control them. Much of the debt is owed to the World Bank and the International Monetary Fund and big international banks. These organizations can say, oh, you cannot pay back your debt. We will be kind to you and write down some of your debt on the condition that we control your policies. You have to adjust your economic policies. You have to liberalize. You have to sell out your national assets and you have to open up for international investments. And so, foreign investors can buy up land. They can start mining projects or they can get oil and all kinds of resources from this country. This is actually a kind of economic warfare. If you search for *economic hitman*, you can find more about it. There are some whistle blowers who have inside information saying that this is actually a kind of economic warfare. Some of the countries that have the most valuable resources, especially oil, are put into debt by giving them loans that they cannot pay back. And then we get this "structural adjustment" that allows outside investors to exploit the resources of the country. This is actually influencing a lot of countries.

Africa has a lot of resources, but they are still among the poorest countries in the world. It is not because they have no resources. They could be rich, but we from the rich countries are actually exploiting them and taking much more money out of them than we give in development aid. These economic mechanisms that have a lot of influence on the whole situation in the world and the political situation and democracy. The countries that are exploited, or the countries that have many resources, have less democracy because there is conflict over the resources. This is called the *resource curse* or the *oil curse*. Countries that are rich in resources have a lot of conflict because everybody wants to fight over these resources. This is destroying the prospect of democracy.

Ricardo (01:05:57):

Is anyone in control of all this? There are some conspiracy theories out there about some secret societies that supposedly control the world. Does any of that really make sense?

Agner (01:06:17):

I like to say that nobody is in control. People want to think that somebody is in control. Somebody must be manipulating, pulling the strings on top. But if you follow the money and see that most people are in debt, most countries are in debt, most companies are in debt. In debt to whom? In debt to big banks or big investors. Now, who is owning the banks? They are owned by other banks. You want to follow the pyramid and say, who is on top? There is a famous Swiss study trying to trace who is on top. And it turns out that the top banks are owning each other. If bank A is owning bank B, bank B is owning bank C, and bank C is owning bank A. Or they are not owned, they have shares in each other. There is this cycle that big banks have shares in each other. So, actually nobody is in control. They are just owning each other. It is like nobody has the responsibility. We cannot say that there is some king on the top, who is controlling everything. Many of the big investors are pension funds and the like. They may be legally required to maximize the returns on their investments. It is all economic mechanisms and nobody is really responsible.

The many financial crises that we have seen throughout history are driven by what is called financialization. This means that we have a lot of financial instruments and complicated derivatives that nobody understands. These instruments are linked to other instruments to other instruments, and there is a long way from the investor to the real-world asset that is actually at the end of the chain. For example, an investor in Finland who is buying shares may be causing a farmer in India to go bankrupt.

And he has no idea because there is a long chain of impersonal papers and instruments in between. So nobody actually know the consequences of what they are doing. In many respects, we can say that nobody is in control. This is why I think we need to look at this from a selection point of view. The biological evolution is actually in some respects a good parallel because things are happening without anybody really in control.

Ricardo (01:09:32):

Nobody is really in control, but is cultural evolution in any way intelligent? Is it the result of some intelligent decision-making or not?

Agner (01:09:49):

Yes, very often it is. Social scientists want to explain things by somebody controlling things, but not always. Even if people are intelligent, the intelligent decision making by a million individuals can have unintended consequences on the big scene. Cultural evolution is intelligent in some ways and unintelligent in some ways. You may see it as a headless monster controlling the world. That is an image I like to see. These automatic mechanisms and anonymous market forces and selection processes are driving our society, and nobody is really in control. Nobody knows which way it is taking us. We are controlled by a headless monster. Of course, not everything is just chaos, but a lot of things are happening without anybody actually planning it to happen. It can go in a good direction or a bad direction, and nobody is actually able to predict what is happening. This is why I think we need this kind of theories that look at automatic processes. Selection processes just happening because it happens to happen.

Ricardo (01:11:18):

In our first interview, we talked about what distinguishes warlike from peaceful societies. We mentioned two of the terms that you use in your book, regal and kungic societies. How can we use these concepts to explain varying levels of conflict between different societies or different countries?

Agner (01:11:54):

Maybe I should shortly recap this regality theory. If people experience war or collective danger, even if it is just a perceived danger, they will become more authoritarian and more likely to support a strong leader. It is very much determined by the environment. If you are living in a dangerous environment where there may be a neighbor country attacking you, or you fear that there may be a war or terrorism, then the society will become more regal. This means that people will be more authoritarian. They want strong leaders. They want strict discipline. While, if you are feeling safe and there is peace everywhere, then people's psychology will drive the evolution in the opposite direction and become more tolerant and egalitarian and peaceful. This is derived from evolutionary psychology, which I explained in the first interview. This has important consequences for how society develops even today. We talked about witch hunts and moral panics. They may happen for no reason, but they have an effect because it makes people scared of witches or devils or child abusers or whatever. The danger may be real or fictitious or something in between, but it is still affecting the political climate and makes the society develop in one way or another. The more conflict you have, and the more danger you have, the less democratic will the country be because people support a strong leader. So the culture or political climate can develop in a less democratic direction. We are seeing this still today sometimes.

Ricardo (01:14:21):

The way you explain how different societies evolve in the regal or kungic direction is because of the environments they are located in. So, what happened when agriculture started developing?

Agner (01:14:52):

The more regal a culture is, that is, the more people fear danger or war, the more they will be hierarchical and warlike and have more discipline. This allows the society to wage war and conquer territory from others. The stronger they get, and the more authoritarian, the stronger the leader at the top, the more likely they are to conquer neighbor territory. Then the society grows bigger and there are more people. They can make a bigger army and they can have more resources for developing efficient weapons. They are likely to sooner or later develop agriculture or some more efficient way of food production. This allows them to make still bigger armies because they can feed more people and develop more complex societies. The history has been a development from tribes to small villages and city states and then states and kingdoms, and finally big empires. I told about this in the first interview. When the empire grows too big to manage, it crumbles. People don't care about what happens on a faraway border, and the regal psychology is disappearing. The elite on the top is growing and is spending more money and they go bankrupt or they fight each other within the elite and it all falls apart. This explains the rise and fall of empires. That is the evolution we have seen throughout thousands of years.

Ricardo (01:17:10):

You have talked about different kinds of competition, like contest competition versus scramble competition. What is the difference between them?

Agner (01:17:28):

This is a concept from biology and ecology. Contest competition is when food or resources are concentrated in small patches that the animals can fight over, while scramble competition is when food sources are spread over a big area, so whoever finds a piece of food first will get it. We can see it in chimpanzees. We have the normal chimpanzee, and we have the bonobo, which is an almost identical chimpanzee, but they are living in different parts of Africa. The chimpanzees live in an area where food is concentrated, so they can fight over it. That is contest competition, and they become more violent. The bonobos live in another area where food is more distributed, so they cannot fight over food. Nobody can monopolize a patch of food, and they have developed in a more peaceful direction. The chimpanzees are actually fighting wars against each other and killing males from neighbor groups.

We can see the same in humans. If you have contest competition, where we have some valuable resource that is concentrated, people can fight over it. For example, the oil-rich countries. Everybody is trying to get hold of the oil wells and monopolizing them, and there is a lot of conflict and a lot of war. In other countries where the resources are more evenly distributed, we have more peaceful societies.

Christian Welzel calls it the cool-water condition. For example, in Northern Europe, we have regular rainfall and everybody can grow their own food. You cannot monopolize the food because everybody can grow food, while in other countries where you depend on rivers and irrigation, the irrigation system can be centrally controlled and monopolized. So, they have contest competition. That is why in Northern Europe and some other parts of the world we have developed in a more peaceful direction and more democracy. This is one way of seeing how the environment is actually influencing society in ways that we may not always understand.

Ricardo (01:20:49):

We have already mentioned religion. How can we understand the evolution of the different types of religions in different societies, for example animism, polytheism, monotheism, etc.?

Agner (01:21:11):

The oldest hunter-gatherer societies that we know about had some kind of animism. They were worshipping spirits of their ancestors. As the evolution grew towards bigger societies and agriculture, some of the spirits got a higher status and became gods, so we have polytheism. And finally, the biggest societies developed monotheism. There was one supreme god over all the other ones.

This actually reflects the evolution of society and the political system that was also becoming more hierarchical. The religion somehow reflects and justifies the political system. The evolution of religion is very slow, but it somehow reflects the political evolution. Rulers and kings can use religion to justify their power by saying that they are allied with a god, or they even have the status of a god. So, the religions are actually also evolving in a kind of cultural selection.

Ricardo (01:22:38):

Another question about cultural evolution that we haven't tackled yet. Is cultural evolution in any way linear? When people think about evolution – biological or cultural – many times they think that it is linear, that it can only go in the given direction, that it is sort of teleological, because it has some purpose and is goal directed. Is that true in any way?

Agner (01:23:20):

Sometimes it is true, but it is also misleading. In the beginning, when people talked about cultural evolution, they were seeing evolution as a ladder where the less developed countries were at the bottom of the ladder, and the rich developed countries were on the top. The poor countries were supposed to climb the ladder and use us at the top as a model and going in this direction. And this is of course a gross simplification because there is no well-defined direction for evolution. This has led to many misunderstandings of what cultural evolution is. It is ethnocentric to think that we at the top define the end of evolution, and that everybody should copy us. That is of course not a very nice way of thinking of ourselves. But to some extent, things are really developing in parallel. If you look at the statistics, the economy, the technology, and the democratic institutions are developing in parallel, or have done so through recent history along with secularization and liberalism and democracy. Things have actually been moving in parallel for many years, but not always. It is not a law of nature that it has to go in parallel. In the recent years, we have seen that democracy is going the opposite way. Many countries in the world have become less democratic in recent years. While the economy is going upwards, democracy is going downwards. It does not always go in parallel.

It is quite likely that the reason why democracy is going down is that people feel more scared, as my theory of regality says. There is more scare mongering in the mass media and a lot of talk about terrorism. Actually, there were a lot of terrorism before 9/11, but the media focus more on it today. Politicians use it to scare people and make them support them when they use these scare tactics. It may also be an economic crisis and other kinds of scare stories in the media that make people support a more authoritarian and less democratic rule.

Cultural evolution is not always linear. Economists often talk about the economy going in cycles, and there are different theories of that. We do not have time to go into that, but it is not always linear. And as we talked about, empires go in cycles. A cycle may take hundreds or even thousands of years for an empire to grow and fall and finally disappear.

Ricardo (01:26:51):

When empires go in cycles, is there a particular sequence that they follow? Is there a period where they are more democratic and then there is some sort of competition that breaks out between the leaders and then we have revolution, and then we have another sort of political system put in place?

Agner (01:27:28):

An empire is almost by definition a dictatorship. An empire becomes more and more regal and authoritarian and hierarchical. They rarely become democratic except perhaps at the top when they stop growing. When the regal mechanisms are no longer active, they may develop in a more democratic way. That happens before they fall apart, but empires may go in many cycles before they finally completely disappear.

Ricardo (01:28:14):

Do we have what we could call empires nowadays? For example, people talk a lot about USA, China and Russia. Can we, in any way, consider them to be empires or at least economic empires?

Agner (01:28:36):

In a way, yes. People talk a lot about imperialism today and neocolonialism. In some respects, USA is an empire. We may discuss whether Europe and Australia are part of the same empire or not. But USA has influence over most of the world. Even though they do not own the whole world, they have influence everywhere and they have military bases everywhere. In some way it is an empire and they are certainly spreading their culture all over the world and they are exploiting other countries for their welfare resources. And so is Europe and Australia and Canada. It is some kind of economic imperialism and cultural imperialism. And then there is China and Russia. They are competing and they also want to be superpowers and have been or still are more or less superpowers. They are competing with each other for dominance and especially for access to resources.

This is a mechanism that has a lot of influence all over the world. After the second world war, the empires are rarely fighting each other directly because that is too expensive. Nobody would win a nuclear war, as we say, but they are still fighting what you could call proxy wars. When there is some Middle Eastern country with a lot of oil, and USA and Russia and China all want influence, they are each supporting different factions within this country. For example, the Taliban in Afghanistan or Islamic State in the Middle East, they have at some time received clandestine support from one superpower or another, and the conflict level is increasing due to support from the different stakeholders and different superpowers or wannabe superpowers. This has caused a lot of conflict and what we call proxy wars, especially in oil-rich and resource-rich countries. This explains a lot of the conflict and war in the Middle East and especially the lack of democracy.

Ricardo (01:31:30):

I have a couple of final questions to ask you about cultural evolution. You say that the term cultural evolution is an analogy to biological evolution, but it is also a misleading one. By using the term cultural evolution, sometimes we might get wrong ideas about how culture really evolves. Could you explain this?

Agner (01:32:12):

Yes. The study of cultural evolution and memes has often concentrated too much on biology and finding analogies and making mathematical models and stuff like that. And that has actually derailed the attention from what I think is more important. Studying selection processes that are going on in the real

world, and which can explain things. But in one aspect, the analogy is a good one. Biological evolution occurs for no reason. Nobody is deciding which way to go. It goes automatically because some organisms are surviving and getting more offspring than others. There are a lot of things in cultural evolution or the way our society changes that are also selection processes that really nobody controls. A lot of things are happening without plans.

It is unintended consequences. We may have intelligent decision making, but there are a lot of unintended consequences that we may not have predicted. A lot of things are happening because of these unintended consequences and selection processes, that we are not really in control of. Economic market mechanisms that are somehow driving us places that we don't want to. I think this kind of analogy can explain a lot of things that are happening with nobody controlling it, except this headless monster that has no will but just goes in random directions. A lot of people want to think that we are in control, that somebody is making intelligent decisions, and indeed there are. Fortunately, lots of things are happening for good reasons because people make good decisions. But there are also a lot of things that cannot be explained just by good people making good decisions or good inventions. We need a lot more research that needs to focus on these things that happen without any plan, because of some kind of selection process we are not really in control of.

Ricardo (01:34:43):

You mentioned the fact that cultural evolution is not always as rational and planned as we would like to believe. Do you think that by studying more how culture evolves and how culture changes, maybe in the future we could do some sort of social engineering to lead culture in a particular direction that we like more?

Agner (01:35:19):

That is happening all the time. Politicians are making decisions, and sometimes they are making decisions based on what scientists or economists say. If we have better theories, we may be able to make better decisions. It will happen whether we like it or not. But me personally, I would like to focus on science, not ideology. I don't like people mixing science and ideology. But if you have a scientific theory, then people can make decisions based on this theory.

We can illustrate the difference between this way of thinking and the more traditional way of thinking about sociology with the second world war. Many people are trying to find out why the second world war happened. A lot of people have tried to study the psychology of Adolf Hitler and say it happened because Hitler wanted to make war. But my take on it is that I think every country has a potential Hitler. The crucial question is not why Hitler wanted to make war. It is more important to ask why did people support him? Why did people vote for him? We have to study this kind of selection processes rather than to look at the proximate causes of one person making a bad decision or being egoistic or something. Look at the deeper mechanisms.

For example, the role of the mass media, as we have talked about. The mass media are controlled by market forces. And the media again are controlling our minds and the political climate. We need to combine economy and media theory and media effects psychology and how this influences the political climate. This is a long chain of causalities that very few people have actually tried to put together. I think this is the kind of a research that we need more of.

Links:

[This interview on YouTube](#)

Preceding interview: Warlike and Peaceful Societies: [Watch on YouTube](#), or [read the transcript](#).

YouTube channel: [The Dissenter](#) by Ricardo Lopez

Book: [Cultural Selection](#), 1999, by Agner Fog

Book: [Warlike and Peaceful Societies](#), 2017, by Agner Fog

[Regality theory website](#) and [discussion forum](#), by Agner Fog

[Cultural Selection website](#) by Agner Fog