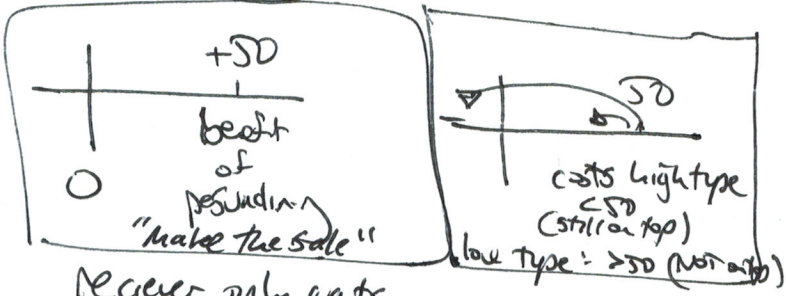
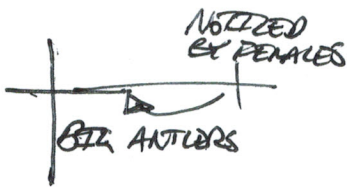


Signaling



Receiver only wants to hook up with high type

receiver needs something that behaves differently for the two types



large antlers/teeth, if healthy, you grow them immediately, if you are a teardrop of starvation, or sick, then you wait to grow them

genes/memes, NOT individual selection NOR group selection

gene	memes
... Next generation ... • bigger antlers • greater ♀ desire for large antlers • ♂ male competition on antler growing	... (ASU)... • more pros • greater ♀ pref. for ♂ prey • makes compete on sending Christmas meme (spreads memes)

(Dawkins)
 • doesn't mean gene is good for the animal
 • meme is true

Megging: not a costly signal

high horsepower: NOT a signal → a direct measure of the (seigniorage + tax fees) MR, and the state of hashing tech (hash #).

Waste: The wealthy could buy useful things ~~that~~ that the poor could not afford (eg, a 1st car) (vs no car at all).

Handicaps optimized to be easily verifiable cost.

• You're talking about handicaps
 • In signaling the absolute cost is irrelevant. In fact if it exceeds the benefit, neither type signals and the scheme falls apart.

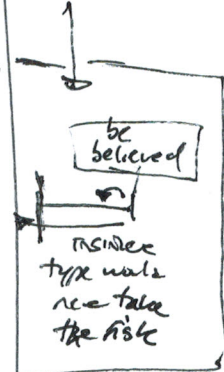
you could chop off both now or MS right now,

or "opportunity cost"
 No relation: Absolute cost of signer
 of sender
 "sincerity" signal reliability

(costly absolute)

Sincerity/Reliability	Y	N
Y	Niche bred, large finches average \$10M coin toss positive network #10B joke "spaghetti monster" 2+2=5	banow cell phone, Forbes billionaire list making digital signature SPV validation (no)
N	(that he makes it to bleed base)	(∞) Assumes that network works but not in practice that SPV can replace that node.

IF someone spends \$10B on anything, then it is reliable information that I have at least another \$10B



sincerity isn't truth because of the potential for delusion.

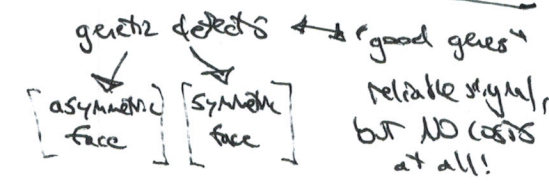
(encourages sincere investigation & sharing collab) betting

Screening:
 • Receiver moves first
 • Sender reacts

(hashpower: any block that meets the criteria, passes)

Measures are not signals
 • hashpower has an incredible range and can be measured very specifically, measuring is precise and easy (by-product of computation)
 digital signature verification also precise & easy (cheaper, even more reliable - not less)

design of hashpower explicit: no pre-distributed public key
peer-to-peer



Against the Hard Fork

1. Whole point of blockchain is to synchronize everyone's UTXO set. The hard fork de-synchronizes it.

People deciding

2. Big Network Effects

A) Monetary Revolution is extremely disruptive. People's life plans are very dependant on their monetary infrastructure. New monies are very subversive/rebellious.

incentive for 3rd parties

B) The whole advantage of money (over barter) is that there is just one money.

C) Developers - they must invest a lot of time into learning a codebase. Obviously, they prefer to learn a codebase that they think has a future. And a codebase is more likely to have a future if developers are interested in it. Thus completing a circle. New positive feedback loop, new network effect.

D) Similarly, investors might say: "Which of these coins has a future? Well, this one is #1, must be #1 for some reason (EMH). If other investors think like that, coordination problem is solved.

Hard fork has the potential to fail, ST rally does not

(Aside from NE) Special Advantages to being the Status Quo AND especially to being #1

Status Quo

a) The so-called "Live by the fork; die by the fork" problem. Which is to say, when ~~do~~ (if ever) do we stop hardforking and just work together as a team. (BCH → BSV, Army) As BSV grows, there will be disagreements leading to some people wanting to fork.

b) The fear of miscoordinating. No one wants to find themselves without teammates. ~~And~~ People are afraid of being split up, but for every single unsatisfactory status quo, there are a near infinite number of ways it might be modified. So you are a tiny mote of dust, in an immense sphere of death - if you want to move the mote of dust somewhere, you need to make sure everyone else moves as well. Every group has malcontents, and no location within the sphere will be completely perfect - so safer to just stay with the status quo. "Go along to get along."

In Bitcoin it is worse because the technical complexity of the project make all forms of collaboration difficult. How do you persuade people that lagelocks are better? How do you know that they actually have been persuaded for good? How do you even know that you are right?

#1 On top of all of that, there are special advantages ~~to~~ possessed only by the community ^{owning the coin} that is #1 on coinmarketcap.

It is like all the coins are on a big hill, with a fortress at the very top. And BTC lives there.

D) One advantage is that all the non-#1 coins can be labeled as deviant. And so they can be stigmatized as (being ~~unsafe~~ disloyal, ^{easily discredited} likely to fork again). Adherents have power that they are somewhat unkillable and untake-able (which might be good for them, but which is bad for winning a war based on network effects).

Only the #1 coin can attract newcomers without stigma.

B) ...

Mature adults know that when a large number of diverse people are making you can't do something just because you think it's better. You might be wrong. You might be right but others may not yet believe you, making

Hard Forks Pt 2

B)... The greatest advantage of the #1 community, is the ~~the~~ publicly available UTxO set.

Even for coins like Zcash, the open source software has a way of knowing the ownership of a given coin; which means that everyone has a way of knowing.

As a result, any community (Zcash, Monero, Litecoin) can change software (can change tech) as easily as you or I could change clothes.

No inherent connection between the tech and the money at all (a position once championed by Dan Travis?)

Why is this an advantage for the #1 coin? Well, the status quo #1 coin, can always react to a usurper by just hard-forking to transform into a copy of it.

HOW TO HARD FORK SUCCESSFULLY

1. Don't leave the trails, without a good plan.
(Snowplover - they leave and freeze to death in like 5 seconds).

2. Minimize the Pain.

- UTxO: keep UTxO sets the same for AS LONG AS POSSIBLE.
- Mind Code change: (count. Patchset "the SMB Bitcoin" (with other competing things))

As time goes on, everything will get worse.

New people are only onboarded to one the old one.

The upstart, becomes an Altcoin.

Mysteries: * Zclassic
* Ethereum Daring

But, there is no corresponding advantage to the usurper. After all, if BSV rose to #1 or CMC, it isn't as though BSV would have to adopt BTC's tech.

Having different tech (larger blocksize, smart contracts, assets, Turing completeness, etc) can not help in overthrowing the #1 coin. Instead, you need to build a completely different community. But b/c network effects & status quo, will be difficult. Start to #1...

If changed, then the only thing worse would be to change it again

Definitions of Bitcoin

• should mean same as they meant yesterday

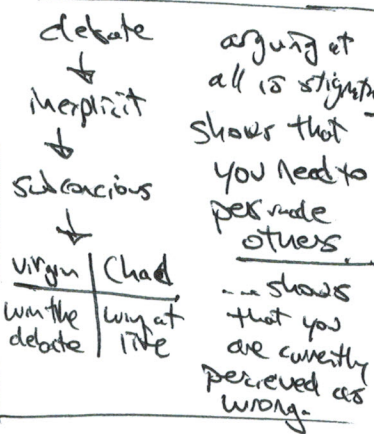
In fact, we each speak a private language that only overlaps with others

• can hear different things to different people, as long as that fact is known "9"

• ~~the~~ arguing from definitions ~~has~~ has never persuaded anyone. Definitions are subjective inside an argument

• Furthermore, the referent of a word can itself change. So I can say:

"Daniel, ~~is~~ wasn't your son originally defined as an infant. But this isn't an infant. Therefore it's not your son."



Nash Equilibrium

1. Devs work on #1
 2. Investors only buy the #1 coin
 3. HFs over and over on the #1 coin.
 4. Altcoins are testnets or IMEX.
- IMEX: strategy to stop the #1 community from adopting the new (eg. claim tech)

BSU

1913	2020
gold	\$20
%	10.17%

All you have to do is stash your cash in the SP500 and you are more than compensated for your inflation tax losses.

BSU		BCH		202
Feb 2019 (TulsaF)	Present	Sep 2017	Jul 2018	Fed 2019
\$68	\$171	\$444	\$2300	\$228
+157%		-50%		+81%

If another tribe was better at speaking would you join?
 It depends.
 How much smaller is that tribe?
 Can my tribe learn how to specialize by clicking a mouse better or better?

Everybody in BSU wants to win (against other coins).
 For now! The underdogs always have an easier time cooperating. As the country grows, there will be conflicts of interest.

You can mistrust (CSW) and think BSU only good.
 Why doesn't this apply to Blockchain Vladimir?

Other coins have central planners.
 What ~~tech~~ technique do you use, to measure the presence or absence of central planner in a coin.

BSU independent
 The BSU economy will grow
 You Derek are
 Many in BSU are conformists.
 How do you know that it will?

What if some thought leader thinks that some people should be able to join?

What if someone joined BSU and said they wanted the blocks lowered?

What about BCH?
 What about competition?

PROBLEM:
 Can a good idea get even into Bitcoin if Vladimir hates it?
 As long as the answer to that Q is "NO" will always be a tyrant.

Agree

- Cooperation is good
- Competition helps find the best plan (for cooperating or)
- Welcoming people is good.
- Saboteur is a loser as are many other BSUers, many are actual traders, not interested in scholarship science/progress.
- Splits are malicious

• Not a "meritocracy"
 Every "ocracy" of every kind that has ever lived, has claimed to be a meritocracy. The true meritocracies it NEVER occurs to anyone to bring it up. One day, one giveaway, it's that an idea was get merged if Vladimir dislik

Advanced country vs. Populus Country

Athena lost to Sparta
 Rome was sacked by Visigoths
 13 colonies vs. British Empire

& their daily adv. is open source software that anyone can steal
 one or idea exists, anyone can use it.

(SW)

Adaptation + Network Effect

On top of that - we have all of this squared because people might plausibly think "well, none of this bothers me, but I worry it might bother others." So each of these hurdles is actually two hurdles. Disaster.

Creates an "unwelcoming atmosphere".

1. He sues people - should only have to be in a tribunal, vindictive way, state as a last resort
2. His unsubstantiated claim to be Satoshi, is offensive to FATHERS - the people who work hard to make Bitcoin success.
3. ~~He destroyed~~ Gavin and Roger Lee both trusted him, and he stabbed both of them directly in the back, so he's just not a very trustworthy person. Not good associate.
4. Numerous extremely severe allegations of ~~plagiarism~~ plagiarism, fake degrees, fake ~~web~~ web pages, fake digital signature, perjury under oath, ~~conning~~ conning people, etc. That drives people away from BSU in the big ways - one is that not one wants to be ~~complicit~~ complicit in an scheme - even

"people might think I'm a sucker" - which is humiliating. It's the coin for suckers.
 Third and most important, why would you give money so someone who might be, a con man. If we could trust other people, a prudent person would ask themselves: "How do I know I won't be..."

Scalability

Money is fundamentally about scale - 5 people trapped on a desert island. They will invest a lot of things - fishing nets, roofing, electricity maybe. But they will never invest money.

Layer 1 - @7 tx/sec

(pure on boundary) 270 million per year

34.4 years for 7.6 billion people

↳ LW can't onboard directly. Needs L2 tx

IF Bitcoin is to ~~replace~~ banks, will need to do some kind of protocol upgrade (soft fork)

- Layer 1 shouldn't be resource intensive
- Should focus on 100% World's payments, or if we can't achieve that, we should probably go in the opposite direction and reduce the blocksize and make Bitcoin like digital Rare Art or something for ultra-rich people.

- custodial
- Ethereum 83k
32k, 100k LW

Money

Definitions
↓
Properties
↓
Functions

"what you need to buy things"
Method of Payment

Money has a
convergent yield
and
speculative value

coin operated laundry machine (you need quarters!)
In Europe, you need EURS. If the restaurant doesn't "take VISA" etc...

Medium of Exchange

no one would want to hold money. It is just "in between" a conduit

World of infinite liquidity, very easy to change \$100 stocks to \$100 shoes or \$100 apples. Merely a medium, like air & conversation

seller dictatorship

between buyers and sellers

Silk Road made Bitcoin money, Panamaware etc. Build more things that can pay in BTC, but not in USD.

(?) We already use fiat currencies as MoE, so Bitcoin is not money yet.

lower fees & greater adoption

Normally, economists like to look through the veil of money. However, when studying money, we can't do that. We have to look directly at the veil of money.