

Capitalism and climate change

**Energy, austerity, work and
the apocalypse**

climate crisis

=

energy crisis



The climate crisis is an energy crisis. We – human beings – are using too much energy, burning too much oil, too much coal. Which, in turns emits too much – more than the planet can process – CO2.

global warming positive feedback



From this we get the 'greenhouse effect', global warming, which in turn kick starts other processes like polar melting, desertification and positive (in the scientific sense – it's negative for us) feedback. Accelerated global warming. You know the science.

First law of thermodynamics

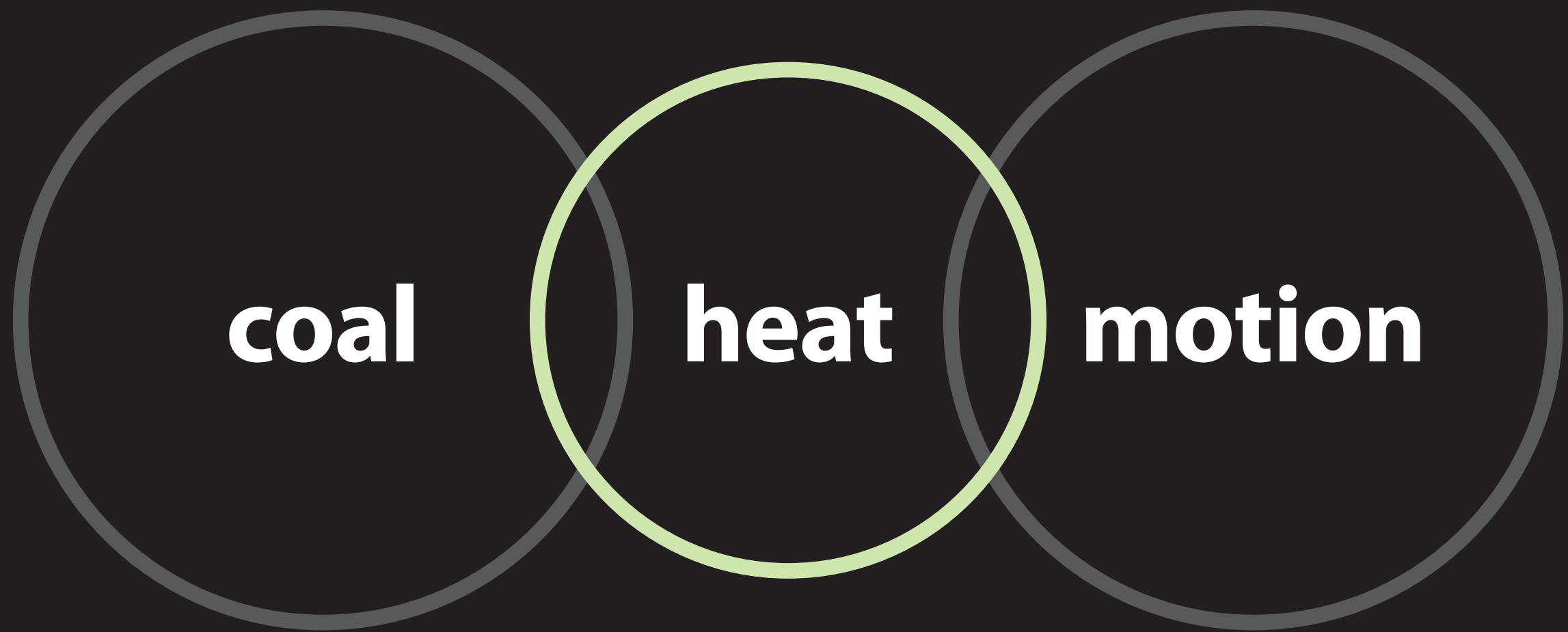
The increase in the internal energy of a system is equal to the amount of energy added by heating the system, minus the amount lost as a result of the work done by the system on its surroundings.



Energy cannot be created or destroyed



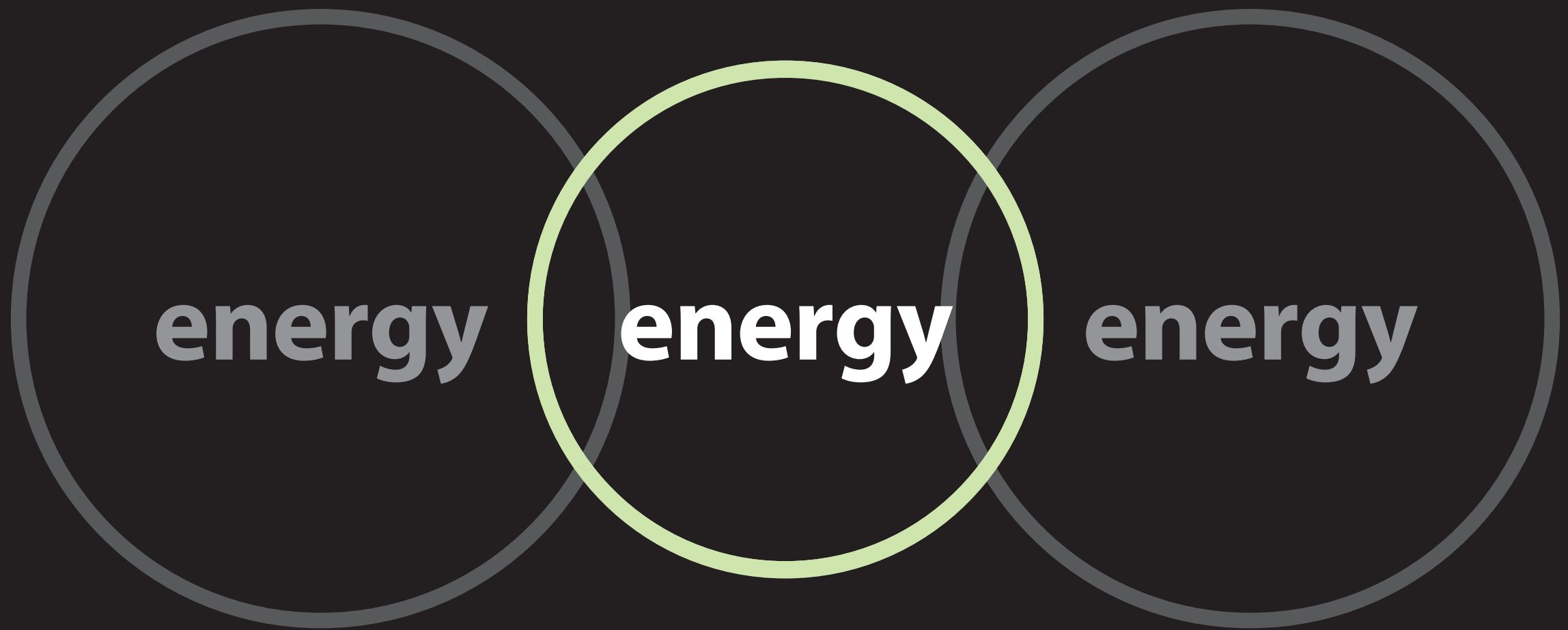
which leads to the law of conservation of energy: for any thermodynamic system, energy cannot be created or destroyed, it can only be changed from one form to another.



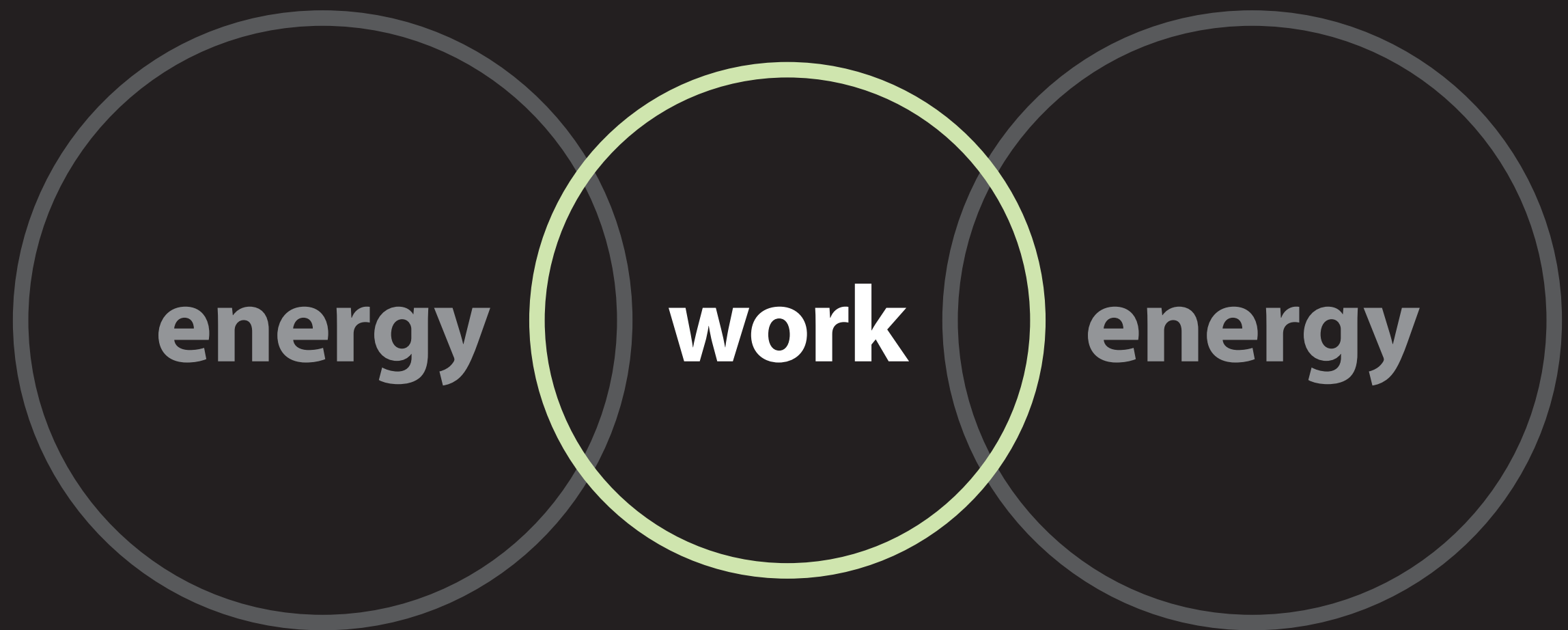
— energy —>



Energy is stored in chemical form in fossil fuels – coal, natural gas, oil. When these fuels are burnt this energy is unlocked and transferred into another form, heat which in turn is transformed via turbines or the internal combustion engine into kinetic energy and then – maybe – into electromagnetic energy and then – in the factory, office, school, supermarket or home – back into heat or light or kinetic energy.



So energy cannot be created or destroyed. Our problem is that too much energy is being converted from one form to another.



Physicists call the process of converting one form of energy into another 'work'.

How do we measure work? One unit of measuring quantity of work being done is the newton – named for Isaac Newton – defined as the amount of force that is required to accelerate a kilogram of mass at a rate of one metre per second squared.

(We'll return to Isaac Newton later.)

flying
cement
agriculture
SUVs



Usual way of looking at CC is to find one (maybe two) causes, the most pressing causes
e.g flying, cement manufacture, burning of fossil fuels in power stations, car usage, agriculture

flying

work

SUVs



Looked at this way, the problem is that too much work is being done, too much energy is being converted from one form into another. Climate crisis is an energy crisis. It's a work crisis.

work?



Enough science for now. Let's talk about work.

It's what we do when we have to crawl out of bed at 7am on a cold dark morning. What we do when we're dead on our feet at 5pm. What we do when we're drinking endless cups of coffee into the small hours to meet some deadline for our boss (or it might be our lecturer).



digging coal



washing-up



writing an essay



designing software



What connects activities as diverse as punching sheet metal, giving someone a bedbath, digging coal, washing-up, writing a Powerpoint presentation?



digging coal



capitalism



writing an essay



designing software



capitalism is the connection
the term 'work' dates from 17th c, same time as capitalism

capitalism?



We are anti-capitalists but what is this thing we're against?

- **the endless search for profit**
- **the separation of product from producer**
- **an axiomatic of decoded flows**



Multiple ways of defining capitalism. Here are just three, from the most straightforward to something D&G came up with. They're not exclusive. Not 'right' or 'wrong', but complementary. And all provide a way into thinking about CC

- **the endless search for profit**
niche markets
new technologies



example 1. capital's need to valorise itself:
endless search for new (niche?) markets
new technologies massive profit opportunities opened – 'magic bullet' of technical solutions to CC.
e.g. solar panels all over Sahara: who will make them? who will sell them?

- **separation**



producer

product



example 2. separation. links to capitalism as endless search for profit, e.g. new technology which is patented
separation of producer//product is also separation of human activity//work is also separation of work//life is also separation humans//
environment.
so separation erases our role in environmental change (absolves producer from responsibility, so “Sorry mate, I just push the button” as chemicals
are dumped)

- **separation**
enclosure



but separation is also enclosure of commons
carbon credits & trading restrict our access to atmosphere

Capitalism as the ceaseless imposition of work



but we are going to look at capitalism as work



**human
activity** **work**



Work as capitalist labour, central organising principle and means of discipline. (Cleaver: 'Work is still the central issue!' <http://www.eco.utexas.edu/facstaff/Cleaver/workiscentralissue.htm>)

What does this mean? All our human activities are re-shaped as work. All our human activities are subordinated to work.

Work structures our identities
Work structures our space
Work structures our time



Work structures our identities: we are in work or out of work. "what do you do?" I'm a printer/nurse/teacher/unemployed
Work structures our space: housing, leeds city centre, enclosure
Work structures our time: the working week. weekends. holidays. rush hour.

How is work measured?



Different activities have to be compared - so you have to make them somehow equivalent. So what is the standard by which these disparate activities can be measured & then compared – brought together under universal equivalent

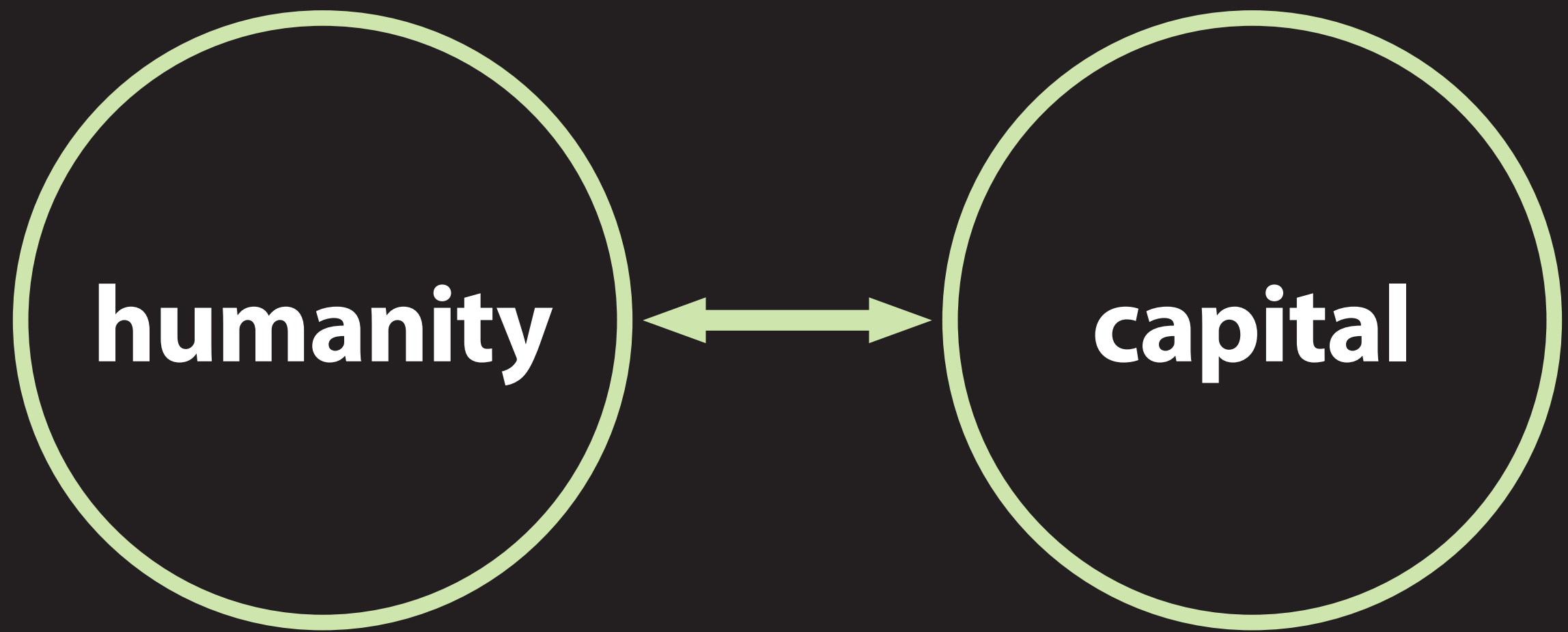
This measure also provides link for different ways of understanding capitalism as separation, drive for profit, imposition of work etc



Capitalism = self-expansion of value (search for profit)

Work and value: capitalist value (i.e. quantity of human work) measured by money.

Newton was Master of Mint, used to be on old £1 note, role in pursuing coin-clippers in 18th century. Coin-clipping the reason coins now milled. Coin-clipping an example of struggle against not only money, but also attempt to equate, compare and measure different human activities, and subordination of life to work. Remember, it's this organisation and ordering of life by work that we're calling capitalism, or just capital.



A little aside here

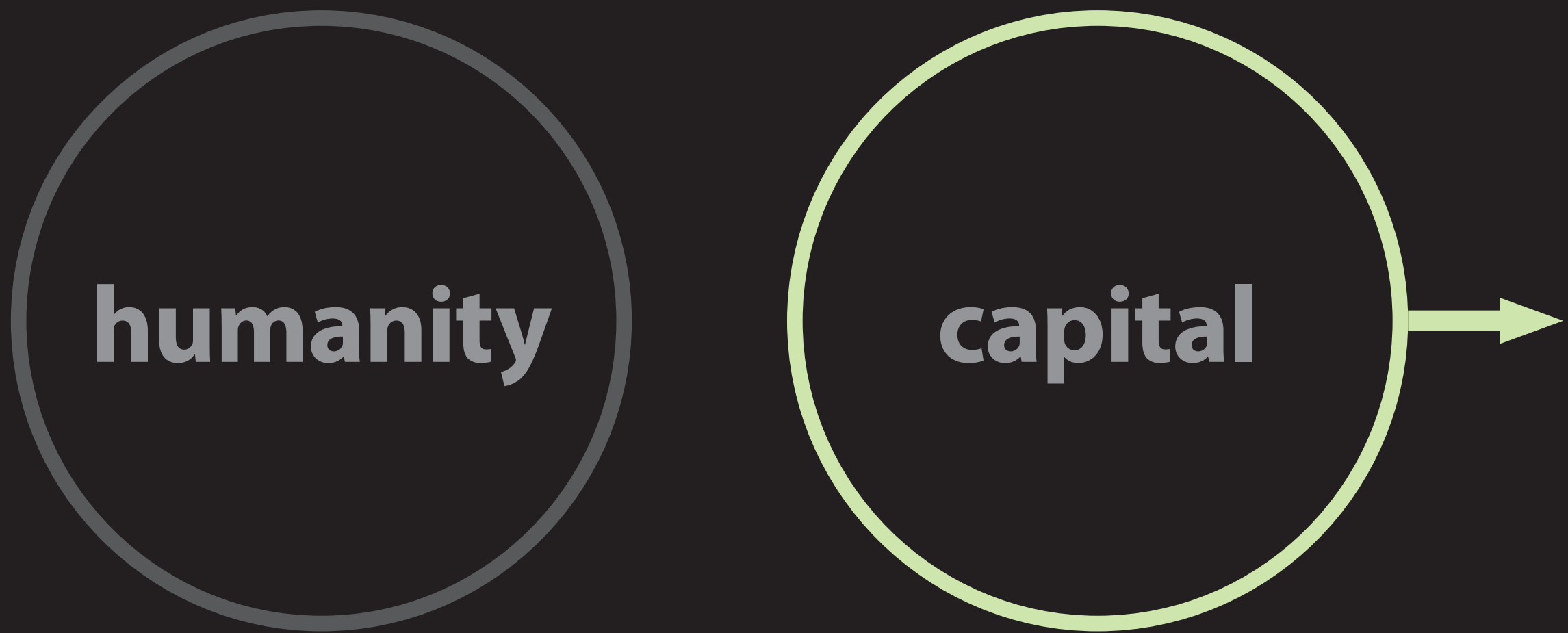
Capital always appears as something external to us -- our boss, or the government, or the IMF or the rich. Hard not to talk about it in those terms



But altho' capital is a social relation, it's not a symmetrical relation between two parties
More accurate to picture it like this



Human beings flee capital relation, work. But capital attempts new ways to pull us back, chase us down, enclosure our activities and order them through work. And it's this constant to and fro -- us inventing new ways of socialising outside of capital, capital trying to enclose these activities -- that drive capitalist development. Examples: internet, free festivals, workers' coops, housing coops.



flight



But capital also tries to escape us -- or rather our insubordination. And it would like to escape its dependence upon us (of course it can't because the relationship is asymmetric): one of the ways it does is to increase conversion of other forms of energy. So we get rising proportion of fossil-fuel (etc) energy to human energy

'The dynamic of capitalist development (that is, class struggle) is the ceaseless and hopeless flight by capital from its dependence on the power of labour.' (Holloway, 'From scream of refusal...')

capital

humanity

environment

TFA

Or we can think about this in another way: think back to capitalism as separation of product//producer, humanity//environment
Tripartite relation: If capital can't gain value from one, it has to gain value from the other. As we resist, capital has to squeeze more from 'natural resources'; but also as we resist capital dominates us more, which means more work (plus we travel more, work harder plus consume more & holiday etc to cope with stress) – all things which have an impact on the environment. Corollary: if we defend "the environment" as something separate from humanity, we're asking capital to shift the costs on to us. Choice between capitalist work and fossil fuel work

Capital is a social relation
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Capital is a social relation



Start of some sort of conclusion. Or rather some pointers towards a way out
First, capital is a social relation
CC is not the fault of big business, evil multinationals, George Bush or soccer Moms

No solutions that aren't collective



No solutions that aren't collective or social:
limits of consumerism:
We cannot buy our way out of this crisis
Doesn't challenge work or money or commodity form

No solutions that aren't social



No solutions that aren't social: It is not a question of 'better' or more 'equitable' behaviour
Carbon Rationing Action Groups/carbon detox etc – feed into lifestyle 'choices', when the point is that most of us don't have these choices.
Most rational way for individuals to escape worst effects of CC is get more money – return to previous point: solutions must be collective

What future?



What future then?

past ... present ... future



Why is it easier to imagine the end of the world than it is to imagine the end of capitalism?

present

past
future



Way we think about present determines how we look at the past and how we look at the future. It's hard to think about radically different futures. Flintstones as banal example. But also Tragedy of the Commons.

So with CC, the only way to understand flying, for example, is thru market-based solutions – rationing via price. Relates back to capitalism as separation because, just as 3–500 years ago in England common land was enclosed, so this solution that involves yet more enclosure

past // present // future



Rupture. The present isn't like the past. Enclosure of common land wasn't smooth, wasn't 'rational', didn't increase 'efficiency'. Series of violent events.

past // present // future
// present // future
// present // future
// present // future
// future



No apocalypse



CC isn't "a catastrophe waiting to happen", a Mad Max-style future

It is a limit to capital. But capital has a knack of overcoming its limits, of using them to fuel its own development

CC not a challenge facing all of humanity, but a (set of) events that will intensify competition and reinforce hierarchies.

More work

One future scenario: a move away from fossil fuel work towards a low-energy economy. A greener form of capitalism, very attractive to some. This is route of austerity. This is what capitalist strategists are strategising for. Climate activists could join them. E.g. Monbiot. But it doesn't matter. However many climate activists and others proselytise this option it won't stop the majority of the planet's population struggling to improve their lives, and to work less.



Worlds without work



www.freelyassociating.org



Cleaver: "The end of capital is not going to involve, as far as things look at this point, a replacement of one homogeneous system by another homogeneous system. It is going to be more like what Marx evoked in the Grundrisse: an explosion, or, as people like Deleuze and Guattari like to say, the emergence of various lines of flight of alternative kinds of social relations and experience. The problem then is that of creating a politics of difference minimising antagonism. It is not a problem which will be solved automatically. Politics, especially new politics, always has to be constructed."