Philosophy 100C
History of Early Modern Philosophy
Lecture Notes

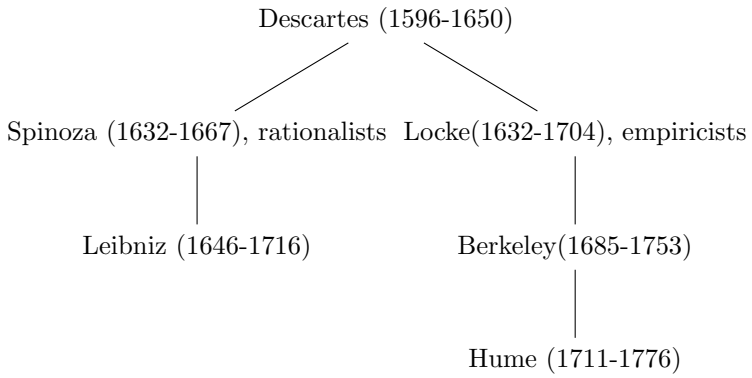
Roy Zhao

UCLA, Spring 2022

Intro Early Modern Philosophy Mar 28

Many people agree there is a fairly big rupture (?) between medieval philosophy (lack of variety in this period, ex. Aristotleianism) with group of people including Aquinas, Avicenna, Maimonides, Seotus, Oathin.

Then follows Descartes, as funding person of early modern philosopher. From Descartes follows two traditions: rationalists (emphasize role of human reason) and empiricists (emphasizes place of experiences in knowledge)



And both routes converge to Kant's *Critique of Pure Reason*

The rupture is mainly on epistemology, which is what Descartes mainly did, transfer the focus from metaphysics to epistemology.

Metaphysics should be defined as comprehensive theory of reality in 17/18th century context. Some metaphysical focus:

- of God/First Principle of universe (responsible for everything that happens in the universe, ultimate explanation of the universe)
- of Mind
- of Bodies
- of Substance and how it differs from accidents/modes

*Spinoza does not believe God has intellectual will, nor is he a judge. Think in the "first principle" way, as a connection for the world's underlying rules.

Also, what is a human being. How does the mind/body go together? All these together assembles the loose term "metaphysics".

In the *Meditation*, Descartes tell us what the mind is, its essence. An essence is the core or constituting properties, ex. water is H2O. Essence of body: extending through dimensions and occupy space. Since there are things mind can do without the body, the mind can exist independent of the body. Mind is its own fundamental being, so the mind is a substance, it doesn't need other things in order to be. Body also doesn't need the mind, also a substance. Human beings are a composition of mind and body.

Contrast with Aristotelian theory, the primary being/substance is the human being (i.e. Socrates) Intellectual is a power of human being, therefore an accident.

Descartes thinks we can now a lot about the first principle. We can appreciate first principle by reflecting on our imperfection and finiteness. Our existences requires the agency of the first principle. First principle keeps us alive and in such form, if god gets tired of me, vanish into inexistence. Descartes also suggest there's something more - motion.

We have mind and body as two elements, Descartes argues that the mind can generate motion for the body. Leibniz and Spinoza also kinda have the same picture, but don't think the physics shouldn't be messed with external forces. Therefore harder job to explain free will given the physics is deterministic. Leibniz tried hard to incorporate free will, but also don't want to give up the mind-body picture.

Contrast Aristotle's substance and Descartes' substance: substances are primary beings that exist independently of other things. Aristotle say the body is a substance. Descartes says that my mind is one of the primary things existing all on itself, as well as god.

On empiricist side, Locke thinks about the question whether thinking requires something immaterial, his answer is simply we don't know.

Intro Spinoza's *Ethics* Apr 1+Apr 4

Spinoza's grounding definitions

Preview

- Substance:"By substance I understand what is in itself and is conceived through itself. " It is whatever can be thought of without relating it to any other idea or thing.
- Attributes:"By attribute I understand what the intellect perceives of a substance, as constituting its essence."
- Modes:"By mode I understand the affections of a substance, or that which is in another through which it is also conceived." or particular modification of substance

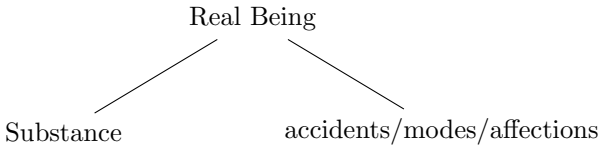
"Real being" in the world separates into substance and accidents/modes/affections. Aristotle refers as accidents, Descartes and Spinoza modes/affections.

Substance

Spinoza and Leibniz are both interested in substance. We introduce a traditional picture of substance, by introducing what *NOT* to think about substance:

We begin with predication "S is P." A thought that modern people normally consider is that S is the substance and P is the accidents. Ex. Mary is tanned, Mary is the substance and being tanned is an accident.

Basic distinction within "real being" that goes back to Aristotelian ontology: substance vs. accidents(Aristotle)/modes(Descartes)/affections(Spinoza).



In parallel to real beings, we have Being of reason, which is NOT real being, includes numbers, relations (A is taller than B), negations(markers can't sense), kinds(dog, cars). These are not intrinsic beings of the world, in a sense that it exists in people's mind. NOT devices god uses to understand the world.

In axiom 1: "all things that are, are either in themselves or something else." The "being in itself" is Spinoza's way of characterizing substance, "being in something else" is way of characterizing accidents/modes. "all things that are" are real beings, not beings of reason.

Consider 3 predications: why the above thought does not work
1) The number 2 is prime
2) The flock of sheep is in the north field

3) Mary's tan is fading
NONE of the things in the subject place is a substance.

Number 2 is not a reality, a being of reason, not a being in the world, or "abstract object."

A "flock" of sheep does not seem like a true picture. Substance should be a basic reality, (real beings should be individuals) should be individual sheep? Spinoza/Leibniz thinks a mirror aggregate is a different concept as a group of things.

Mary's tan? Has certain properties, but still not a primary/basic being. The tan cannot exist without Mary.

Another distinction: accidents are universal. BUT this is not what Spinoza means, he concerns on the dependence of existence.

*NONE OF THE ABOVE EXAMPLES ARE SUBSTANCES!!!

Aside: Aristotelian Picture of Substance
Some picture of substances in the history of philosophy:

- Medieval (Aristotelian):
  trees, cats, dogs, are material/physical substances
  angels, intelligences are immaterial/non-physical substances, outside space and time
  God: ??? Aquinas resists calling god a substance because it's kinda a restriction. Descartes call god substance.

Example: Socrates with two accidents, accidents depends on him.

$$\boxed{\text{Speaks Greek(accident)}} \rightarrow \boxed{\text{Socrates(substance)}} \leftarrow \boxed{\text{paleness(accident)}}$$

Aristotelianism and Spinoza's substance have two priorities:

- Substances are prior to accidents in being.
  Substance make possible the existence of accidents. Mary's tan requires Mary to exist, etc. Not the other way around
- Substances are prior to accidents in definition.
  A comprehensive Theory/understanding of the accidents involves the theory/understanding of the substance. We are not refining concepts by defining, we are giving an account of its essence, its logos. Ex. molecular formula of some compound.

Similar to "substance is in itself and exist in itself."

Accidents/modes are therefore:

- dependent in being.
- dependent in definition/understanding.

Aside: There are necessary accidents → capacity for sense of humour of human, fire to heat, etc. You cannot have fire without heat, yet still modes.

God

Something WRONG again:

Philosopher's general view on the First principle: everything at every time depends on the first principle. It is NOT the case where first principle creates human/trees, etc and we exist on a metaphysical inertia.

Therefore, if we are looking for a substance, which is strictly independent of other beings, we have ONLY the First Principle. However, it's NOTTT the right view.

What's clear of Descartes on substance:
1) god is a substance without equal (per excellence)
2) Res Extensa (entire extension of our world)
3) Minds

Something less clear:
1) Parts of extension (probably?)
2) Human body (probably not? It's like a gesture)
3) Human body + mind
Descartes likes things to be muddy:) Locke: we aren't sure about what substance is:)

Spinoza's Chapter 0

We follow a two prompt route here:

Prong 1) Ontological Demotion: Why aren't we substances? Why do we have to be derivations of something more fundamental?

Descartes would have the mind as substance, mind + body? not so sure. Spinoza aligns us with modes/modification - motivated by the 17th century physics. Spinoza thinks it would be helpful to have a good realization of ourselves.

We first think about Aristotelean Physical World:
Causal structure starts with "ordinary things", with living things as a paradigm. All entities can be analyzed in two principles: animated principle and material.

Imagine an Aristotelean physical individual - a tree (oaky) in Dinckinson court fall in a storm. Oaky is an active being, drawing roots and nutrients, etc. It then got stuck by lighting, it fall and all activities stop.

The intuitive idea is that there was something before the lighting, but gone after the lighting of this picture. We just go abstract and name this thing "animating principle." So Oaky has an animating principle - a source of life/activities. The lighting causes the animating principle to not work/gone.

BUT do we need this animating principle? Could we just get away with saying the composition of the tree changed?
Depends on the theory of matter we work with. In the traditional Aristotelian world, the four elements earth, water, air, fire do not accommodate any more possibilities, so we need the animating principle.

Aristotelian diction describing composite objects: form or substantial form (in Aristotelian tradition Oaky is a substance) since it's a substance.
Animating principle = substantial form, which provides an object with the causal powers that are distinct and partially constitutes from its nature

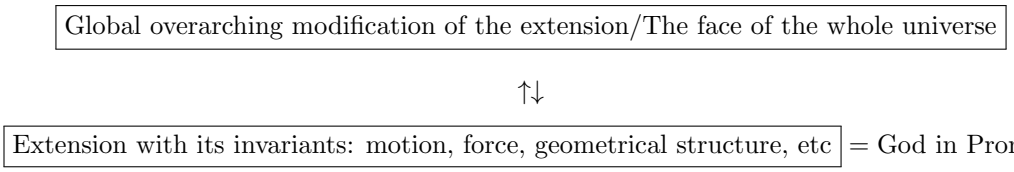
* Aside: Aristotelian human form is more impressive: our form is not only responsible for growth and reproduction, but also sense/move, or more - rationality(understanding/willing), where we generate free will. Our form is then called the rational soul.

Back to Oaky, the matter actualizes oaky's form and now it becomes a hylomorphic composite

Now Spinoza's physical world:
There is only one substance - god/first principle, all other things are modes. A universe that is absolutely full of homogeneous matter. (Aside: Leibniz thinks this too, but it's because god will fill space for his glory) The conception of matter - an extension, anything having 3 dimensions/volume, region of space that can migrate. The way we can move through the homogeneity is motion.

Spinoza also imagines God moving the homogeneous medium, Descartes/Spinoza think that small crystals form in this process - a conjecture is that these are the simplest matter Spinoza talks about. Then, these simple structures move to form more complex bodies, this process continues to a "higher physics world." Thus continue to infinity, we have a body whose parts are all previous structures - "The face of the whole universe." He also states laws of inertia, incident angle is same as reflection angle, $\vec{a}+\vec{b} \geq \vec{c}$, etc, as some invariant structure of this extension, or "a complex body in a dynamic pattern (ratio) of motion and rest."

We could put them in the following picture:



which the face of the whole universe is a modification of the extension. And inside the face of the whole universe, there exists Oaky and Rocky. Inside the jet stream, Oaky also has a horizontal dependence on air/water in the jet stream.

But what about humans? 17th century science develops a really different view of human body. It also just exists in the modification of the extension/the face of the whole universe. For Spinoza: our body is a dynamic pattern of motion and rest sitting in the extension. It's NOT just a pile of stuff, it's essentially active, which depends on the causal order. Therefore, our activities are dependent on something else. Your mind is God's/FP's idea of your body.

Prong 2) Why do we have to be modifications of god? not some Cartesian extensions?

Spinoza's *Ethics* Apr 8

In the previous chapters is what Spinoza assumes the audience to know.

Ethics is not about being morally right or wrong especially. The main topic is ethics in sense of Aristotle's *Nicomechean Ethics* - talking about eudaemonia/flourishing, etc, which starts with an account of what we are - we need to know x's essence/nature in order to tell if x is flourishing. Aristotle concludes that our nature is being rational animals, later introduced a life of civil engagement, where rational excellence is fully developped and exercises. In Book X, Aristotle states the best life is the life of contemplation (kinda strange).

Fast forward to Spinoza, who is taking a similar subject. He thinks that Aristotle is rather superfacial. (Prop. 40 in Part 2) He thinks bodies are "dynamic pattern of motion and rest" and minds are "god's ideas" and this is a more completed account. Notice Spinoza does not believe god is a moral judge - we/the dynamic pattern are modifications of extensions, which is god! We need philosophical theology.

Part I. Appendix: First principle theory to philosophical theology
1) The FP/god is self-caused, necessarily exist to its own nature.
2) The FP is unique.
3) The FP acts through the necessity of his essence. Eveyrthing he does is governed by his essence.
4) The FP is form cuose, int eh sense of unconstrained.
5a) Everything depends on god
5b) Everything besides god is a modification of god.
6) God does not operate by will/intellect.
7) God is NOT a moral judge. (Letter 21, not in Appendix)

Philosophical theology worldview: the world is NOT a list of inventory

$$\text{world} \neq \{A, B, C, ...\}$$

where A,B,C, are items in the world. There instead should be a unity existence, where A,B,C are all connected because of this unity. World is intelligible and open to be understood. There should be an explanation that the world is connected - FP/god.

But FP cannot have an external cause, if then it wouldn't be the cause of unity. FP will have to be self-caused, it has an essence/nature (real structures in the world) responsible for its own existence - real existence (not number 2, etc)

Into the text's part I. Up to Prop. 15, we worry about extension and substance. Especially 1p14 where he states monism. Starting Prop.16, why things get produced from the extension (uparrow in the diagram)

1p2 + 1p3: Causation and understanding. Spinoza's view is that causation is intelligible, that you can see how cause is related to the effect.

1p4 + 1p5: individualization
So there cannot be two substances.

Connects to axiom 4, the way of getting to the essence is only through causal chains, providing a property (defining a circle) is not a good definition. Definition should capture its essence.

Could extension be produced by other substance S?

$$\boxed{\text{Extension 2}}^{?} \rightarrow^{?} \boxed{\text{Extension 1}}$$

By Axiom 4, the nature of extension needs to be understood through this substance. Spinoza thinks this can only happen if S is extended/is an extension.

He worries that we would not have the base to distinguish S_1 and S_2, also what makes them distinct? How do you tell if there are two things? For example, labelling two piece of paper do not make them distinct, they are different/there are two things long before the labelling. We need Prop. 4 - difference from either modes or substance.

We put you and me in extension 1(face of whole universe*), some friends in extension 2(face of whole universe). Before we can have two different faces of universe, we need two extensions already. Modes cannot be the things that makes two extensions distinct. So, we cannot tell a coherent story that extension 1 is created by something else.

Argument for P7 - Infinite Attributes Apr 12

Rests on 2 principles articulated through the definitions:

- Intelligibility of causation based on A4
  Understanding an effect involves/depends on understanding its causes.

  Ex. defining a circle (giving the essence of a circle): should always involves how to construct it. "It is a figure formed by rotating a line pinned on a certain point."

  Essence and causal account is connected: if x causes y, then y is intelligible (can be known) through x.

  Spinoza: giving an account of something's cause means it's possible for it to exist.

- Individuation: whenever x and y are distinct, there is an explanation/ground for their distinction.

Therefore, if a substance is the cause of another, then there would be no ground for them to be distinct. There is still only ONE substance. Spinoza made this claim in P3 $\approx$ if x is the cause of y, x and y has the same nature/attribute.

*substance can have multiple attributes.

P4: Substances are either distinguished through their modes or through their nature.

Therefore implies P5: there are no two substances of the same nature. There is no ground for them to be distinct at all.

P3 and P5 implies P6: no substance has a distinct thing as its cause. Conclusion: substance is self-caused, they exist through their own essence.

But P6 does not imply P7: either there is no substance, or it is a substance's nature to be un-caused. So Spinoza makes the assumption that "something" exists, and substance can't be un-caused.

QUESTION: WHAT IS THE DIFFERENCE BETWEEN ATTRIBUTES/MODES?

Spinoza's *Ethics Part I* continued Apr 12

Recap: First half of part I of *Ethics* is regarding monism: there is no substance other than the first principle, especially in P14 and P15 (everything is either god or in god). If you are not God, you are a modification of God.

One of the most key claim, in P7, Substance exists through its own nature/essence. Strong claim. numbers, etc do not have existence like real beings. Essence of the substance powers its existence.

Spinoza later in P6 P7 made a startling claim that there is only one substance, which is god. The only candidate for substance is the extension. In P2 and P3, P4 and P4, Spinoza says that one substance cannot be produced another substance. Substance A cannot produce substance B. We ask: suppose extension is s substance, why can't it be produced?

Two main ideas of this questions:

1. causal intelligibility: one ought to be capable of understanding how effect is intelligently related to the cause.
2. more Spinozistic idea on understanding P4: to understand a thing' essence, we have to understand its proximate cause, how it's possible from the basic order of universe. Understanding water involves understanding how chemical bonding makes possible H2O.

Spinoza then bases off his argument on causal intelligibility: if extension were produced, it would then have to be understood from its essence, explainable in terms of its cause. Its cause also therefore has to be an extension (of controversy)

Following Spinoza's second move claims we can't have two extensions. Depends heavily on if we can distinguish between criteria of individuation or ground of individuation.

Imagine two pieces of paper, one with an X, the other is blank. the X is a criteria or individuation, but not ground of individuation since X did not make two piece of paper, we already had two piece of paper.

Counterargument: Henry Odenberg's resistance on Spinoza's particular version of causal intelligibility. Extension just is...? Kinda resistible:)

P6 says a substance cannot be caused by another substance, while P7 says existence belongs to the nature of substance. There is a subtle logical gap!

Spinoza's theory of attributes

So far it sounds like every substance an with one attribute expressing its essence, but there is only one substance and has all attributes. Substance has multiple attributes.

Leibniz's problem: since the only substance has a infinite number of attributes, substance can have multiple attributes. We imagine one substance with two attributes: thought and extension.

$$\boxed{\text{thoughts, extension}} \rightarrow \boxed{\text{Extension}}$$

Could another extension be produced from this substance with thought and extension? There is a causal intelligibility (we can know one through the other since both have extension), no problem with individuation (one has 1 attribute while the other has 2!) Does not violate any principle listed! Seems like we can have a substance generating another now, which differs from our previous argument???

Definition 4 of attribute: "by attribute, I mean that which the intellect perceive substance as constituting its essence." We use this to understand Spinoza's god and Leibniz's problem. So attribute is something like a intellectual perception/account of a substance, or in Aristotelian way, a real definition/an account of essence/logos/understanding of substance's essence.

Spinoza identifies substance and attributes at P4: "therefore, there can be nothing external to the intellect through where several things could be distinguished one another, except substances, or which is the same thing, the attributes." We therefore make a list of equivalents:'

$$\boxed{\text{definition}} =^{?} \boxed{\text{defined thing}} \equiv \boxed{\text{essence}} =^{?} \boxed{\text{substance}}$$

which the defined thing is the essence, so the middle equal sign is trivial. The rest is a bit shakier.

Now the First Principle: "by god, I mean an absolutely infinite being, that is substance consisting of infinite attributes, each which expresses eternal and infinite essence." God's essences are multiply intelligible - can be known lots of ways. So in an Aristotelian fashion: "something one in number but different in account(logos/real definition)." So like a road from SF to LA, and LA to SF, one road, two expressions. FP capable of being known in many different ways and emotions. Spinoza's FP kinda sounds like this.

Spinoza's Infinite: NOT mathematical. More like "unlimited" - so when he says god is infinite, it means god is without limitations.

Moving back to attribute/god's essence example. Spinoza's view is that the attribute "extension" and attribute "thought" both characterize god's essence. But how do we understand this? One attribute is not a further determination of another attribute: like Aristotelian method on adding rationality on the base of nutrients, etc to make us a different kind of animal. Extension is not a specification of thought, and thought is not a specification of extension. Spinoza has P10 that each attribute of one substance is conceived through itself, NOT other attributes. Important

for the coherence of the FP, working out an understanding of one preclude another. Justifying the coherence that it's not contradictory.

Another thought of Spinoza: P12 and P13 emphasizes indivisibility of god/substance, there is no parts. So, how do we fit together that the essence of the FP is multiply intelligible with the absolute indivisibility?

Two models: both available from philosophical theology tradition:

1. Aquinas' simple approach: each attribute is a different way in perceiving exact the same thing. Ex. blue lens/green lens, etc but the same reality.
2. Scotus' way of thinking space: Each attribute shines light on a different aspect of reality (essence of a substance), but all these aspects (not prior to god) are necessarily connected to one another like all regions in space. Since all regions in space are connected, having one part of space necessarily entails having the rest of the space.

* We aren't sure if any of these were in Spinoza's mind... But 2) more plausible, from P9, each attributes answers to a different reality. Also, Spinoza tends to call god indivisible. Spinoza thinks if we have one of god's attribute, we then have all of them. (from attribute is just different aspect of the same thing)

QUESTION: REGARDING THIS ALL OR NONE PROPERTY OF ATTRIBUTES...?

Return to Leibniz's objection: we can't have the situation from the below diagram happen, since attributes stay or fall together. We can never have just thoughts and extension on the left and just extension on the right side of equation.

$$\boxed{\text{thoughts, extension}} \rightarrow^{\times} \boxed{\text{Extension}}$$

For the only substance/FP/God, we must have all attributes together and causing god with all attributes together. And they become indistinguishable.

Take-aways from Spinoza's theory of attributes:

1. Attributes are definition of substance's essence, therefore much closer associated with substance than anything else. (P4)
2. ATTRIBUTES ARE NOT MODES! because they are account of the substance, they practically are the substance, therefore not modes.
3. Conceptual independence, but ontologically tightly connected.

Another point on why there can't be other substance besides god in P14: in P11, Spinoza argues god exists, especially second demonstration.

We prove by contradiction:

P) we suppose another substance S exists and is conceivable, S then has a coherent essence.

$\therefore$ there is some attribute that we can conceive that essence.

$\therefore$ S has an essence, which can be perceived via attribute A (could be several).

$\because$ Meanwhile, God has infinite attributes so he has A. Now does S has all attributes? Yes, they are all or nothing.

$\therefore$ S has all attributes that god has.

$\therefore$ we can't distinguish S from god.

Spinoza's *Ethics Part I* 2nd half continued Apr 15

In the second part of Part I(after P16), Spinoza talks about free will and makes his famous suggestion that everything that happens in the universe is out of absolute necessity, which although counter-intuitive, follows pretty naturally from his standpoint on philosophical theology.

However, the official main topic is how the substance/god is producing/causing everything else - what is the casual relation to creation or to the world?

Ethics Part I second half

We re-picture extension and its modification:

Global overarching modification of the extension/The face of the whole universe

Before 1P15 $\uparrow$ $\downarrow$ 1P16

Extension	=	God in so far as it's extended

Therefore from 1P16 and on we have how this extension is causing these modifications. We transition from "everything lives in god" to "god is producing everything."

Standard First Principle Theory about God's Production of things from theology:

1. Dependence on FP: this dependence is absolute, every movement or object relies on FP, relies on FP's causal support.
   Spinoza: YES!

2. God acts through intellect or will.
   Spinoza: NO! Neither intellect or will pertains to the nature of God" There are infinite intellect or will, but they are all God's modes/modifications. (1p16) The modes all follow from gods' nature, since God is infinite so any mode could happen. Ex. the nature/essence of triangles gives rise to all its properties (internal angles sum up to 180, etc)

3. Intelligibility (understandability) as above leads to, since it's ultimately executed from god's will, there is a reason for everything. Why does something happen? The answer is not "law of gravity", but "in the plan the God has for the universe, this plays that role." We can understand why things happen the way they do, given we have a infinite benevolent being.
   Spinoza: on board with that the world is entirely intelligible, but a different picture on intelligibility! For example, the sum of a triangle's internal angle always equal to two right triangles - is that intelligible or just the way things brutally are? There should be a sharp line between the essence and the things that follow from the essence(properties). Essence should

be the construction procedures, properties follow from essence. Exactly same for FP. My intelligibility picture is therefore much more mathematical - definition to corollaries kinda thing.

4. Contingency. Two levels to this: whether God decides to create a world, or how the configuration of the created world is laid out. God is self-sufficient, he doesn't have to make the world. There is an infinite number of ways to construct a world, constructing one of them (ours) require some contingency.
   Spinoza: NO! Everything that happens happens with absolute necessity. Kinda derived from his mathematical picture of intelligibility picture above.

*Point to notice, if we deny 2) like Spinoza, we are going to end up with a strong sense of necessity.

Compare to Dunes Scotus: Scotus has 1) proven but not yet 2). His argument of god's free will proceed as the following:

1. there's contingency.
2. as a mode, I can't act contingently unless the first cause is acting contingently.
3. Contingency implies (free) will.

$\therefore$ If there's contingency, FP has a (free) will.

But of course, "one persons' modus tollens is another person's modus ponens." For Scotus, assuming contingency gets us free will (Modus Ponens); For Spinoza, FP has no free will, so there is no contingency. (Modus Tollens)

The most important part is P16: "From the necessity of divine nature must follow an infinite modes[infinita infinitis modis], that is everything than can come with the scope of infinite intellect."

We summarized the ideas in the demonstration of P16:

1. Intellect: level of understanding
   From definition infers $\rightarrow$ properties (realities)

   World: level of essence
   From essence follows properties (realities)
2. The more reality expressed by/found in definition in essence, the more reality/properties follow. Ex. the stronger the fire, the more heat it produces.
3. In case of FP, we have an absolutely infinite essence/definition expresses absolutely infinity, it will therefore make the maximal order of reality possible (as much as possible that can be made). Therefore it makes the MOST PERFECT face of universe there possibly can be.

Unlike Leibniz who thinks that if God is doing the best possible, then he is associated with a will, Spinoza thinks objects in the face of the universe as dynamic pattern of motion and rest. When we say that the pattern that makes up a deer body is better than that of a rock, we mean to say the deer pattern is more rich and interesting than that of a rock.

Where Spinoza talks about degree of reality and perfection: 2d6, 2p13, 1app, 1p33s2.

What does the "richest order of modes" look like?

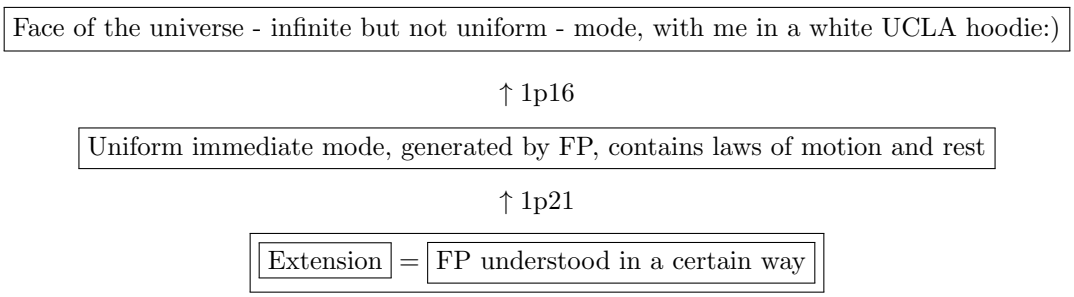
Spinoza thinks within all the existing coherent faces of the universe, there is an upper bound on how perfect it could be - equivalent to Leibniz's proposal that there exist a best of all possible world. If we imagine no upper bound, then they both have a problem.

A parenthetical comment after P16: "Substance of the FP generates everything within the scope of infinite intellect." Many readers, including Leibniz, think this is Spinoza's thought - what substance does is to make every internally possible thing, or internal coherent structure. But there are controversies inside his own text. Prof. Carriero's thought, we could hypothetically take a maximally possible world, see what's in it, and there is definitely things that are not present in this maximally possible world therefore not everything is actualized.

Leibniz's objection of Spinoza's view that every the substance creates everything possible in the world: somethings are internally possible but not collectively possible. Ex. Separately, we could have every philosophy class meet in Haines at 10, but it cannot happen collectively.

We could also have faces of universe that has no motion, or simple circular motion only. And we cannot have them all in this world. Did Spinoza miss these points?

We come back from the small technical problem and come back to Spinoza's argument for non-contingency. Looking at 1p21, we can depict a new picture for Spinoza's universe:



Two steps establishing this necessity:

1. Inside the causal grid in the face of the whole universe/nexus, given the way the pattern of motion we are going, I'm gonna wear my UCLA hoodie
2. causal grid necessarily generated by the FP, maximal reality of motion of rest.

Suppose I'm wearing my Meadowridge hoodie, the whole causal grid would have to be different, so the extension would have to different accordingly. Spinoza doesn't think it's possible.

Say if we want to get off the bus that's Spinoza's driving, we can refer to some comtemporary physics - why is the gravitational constant just that, seems with a grain of arbitrariness, but it also is not enough for form another argument against Spinoza's necessity view. Free will could be a best solution to all this? Makes space for different results.

Free will: if we fix my external conditions (from the world) and internal conditions (psychology), it is still possible to do A or not do A. The decision is not settled.

Spinoza will argue that we cannot really rely on our intuition that we have free will. He thinks free will comes into play when we made some decision but don't fully understand it, however, there are tons of micro manipulators driving this decision.

Previously, we introduced Spinoza' theory that our bodies are just modes. The thought is: could we somehow restate our status as primary beings through our minds? Descartes would say yes, but Spinoza would not - it's a part of the infinite intellect (a modification) of god. A PART OF INFINITY IS ALSO INFINITY HUH? Our mind is therefore a part of the modification of god.

REWIND LAST 10 MINUTES

Paper notes

"principle of sufficnet reasoning" from Spinoza's rationalist account that having a cause for everything is nearly an axiom.

given a number of beings, we also have to explain its particular number, cause of each distinct one. Substance is self-caused so there can only be one.

Spinoza *Ethics of God Part II* Apr 21

Recap: we introduced Spinoza' theory that our bodies/minds are just modes. The thought is: could we somehow restate our status as primary beings through our minds? Descartes would say yes, but Spinoza would not - our mind is a part of the infinite intellect (a modification) of god. This infinite intellect of god is a modification of the attribute of thought. So, our mind is a part of a mode, therefore themselves have to be modes.

So naturally we have the question: how is FP's thought structured? What's corresponding to the face of whole universe? (not attribute of extension, but the attribute of thought) Where in the structure is human mind? Spinoza's framework: god's thought is understanding and intellectual, does not sense or imagine, just understanding a structure on its essence. Understanding (for us) is defined is how good the mind has a grasp of some essence

$$\boxed{\text{mind}} \rightarrow \boxed{\text{essence}}$$

First thing the FP primarily understand is its own essence, then everything flowing from the essence. Spinoza thinks that the essence of finite things are limitations of FP's essence (a circle is a limitation of infinite space/extension). Therefore, God, through his understanding through the infinite essence, understanding how this infinite essence could be limited and generate the finite essences. God also "sees" all the things that are produced by himself. The way he sees this kinda like god solving a geometry problem. Recall FP automatically generates this maximum order of reality within each of the attributes. So, God knows the essences that he is generating through his infinite power. When using the extension attribute to understand his essence, we see the face of the whole universe, etc. God's thought process: using the definitions and making all the inferences, like taking a piece of p16.

$$\boxed{Thought} \qquad \text{real definition} \rightarrow \text{infers}$$
$$\downarrow$$
$$\text{account of understanding of} \qquad \downarrow$$
$$\downarrow$$
$$\boxed{World\&Extension} \qquad \rightarrow \text{properties/features}$$

Where since god has infinite intellect, his inference from definitions will perfectly match the properties exhibited in the real world. We also notice that the essence always existed, and wait to be understood, not the other way around.

Aside - Punchline: Human mind is the First Principle's idea of the human body! We think FP's thought to be limited to human body. Recall our mind is a mode of FP as extended, and dynamic pattern of motion and rest, which is a good amount of information we carry a priori. We then run these information through the limitation and that's ultimately why we are not all-knowing like god does.

We borrow from the 4 causes in the Aristotelian tradition: imagine building a bronze sculpture.

1. the scuplter (efficient cause/agent cause)
2. purpose (final cause)
3. perfection (formal cause)
4. bronze (material cause)

Whether the attribute of extension plays some role in my thought - it's much like the material cause, not close to the efficient cause.

God's mind

What kind of thinking is God engaging in?

In the first instance, God's thinking is intellectual ≈ rational understanding ≈ grasping essences.

Mind is an intellectual grasp of God's essence.

	Infinite intellect	
	(god's idea of a particular human body)	particular series of finite (face of the whole universe)
	or collection of all finite modes	
1'01 make up notes	Mediate infinite modes	Laws of motion
	Idea of God's essence	Immediate infinite modes (geometry, etc) Mind
	Extension	

Spinoza's reasoning: thought and extension, which makes up your mind?
In 2p11, mind is an idea, since idea plays the same role as body plays in the extension.

Ideas have content - what are they made of? The existing or actual, singular (finite).

Take-home: our mind is god's active engagement/idea/understanding of our bodies, NOT a mental picture of our bodies.

End Spinoza + Beginning Leibniz Apr 22

Notice that although god has total understanding of our bodies (which we mostly aren't 100% aware of), sometimes understanding events for bodies require understanding some outside factors. Say if I feel a breeze - Spinoza thinks god can just get understanding from the body alone.

There is a perfect correspondence between the mind and the body. Again back to the picture that the extension attribute of FP produces laws of motion, then the face of the whole universe. Inside the FoWU, there is me with my scratched knee.

$$\boxed{\text{First Principle}} \rightarrow \boxed{\text{Laws of motion}} \rightarrow \boxed{\text{Face of Universe(richest order)}}$$

How does this get into the FP? FP could calculate that, in the richest possible order. There is no causation between FP's thought and essence. Our bodies don't interact with out minds (3p2) - "the body cannot cause the body to think, nor can the mind control the body in motion."

Puzzle follows: how to understand sensation/apparent mind-body causation? What's the relationship between the idea of body and the body? Looks like a causal connection between body and mind all the time.

$$\boxed{\text{idea of body}} \rightarrow^{?} \boxed{\text{body}}$$

Spinoza says the idea of the body is not the body. The circle has a circumference but the idea of a circle has no circumference.

We go back to the mind-body problem. First, just physics and in terms of extension: Imagine a Spinoza book, then there is a light shooting to my retina and create a brain impression.

$$\boxed{\text{Spinoza's book}} \rightarrow \boxed{\text{me}}$$

Now to thoughts, all the physics procedures exist in god's thought. God will understand that the brain impression is generated, and why it happens. To understand that, we need to know more than just the body (the light, etc) Spinoza thinks that the idea in my mind is the thing I use to think about the book. But since I don't have the full story (why it is there) we only perceive it inadequately without knowing why it happens. In case of FP, FP has the full picture so FP does not use the partial impression inside our brain for the full picture.

How does the body affect the mind? Caffeine! We portrait the traditional view.

$$\boxed{\text{Good in coffee}} \rightarrow \boxed{\text{desire}} \rightarrow \boxed{\text{my mind}} \rightarrow \boxed{\text{move hand}}$$

NOTICE Spinoza will deny this as my mind can't move my hand, there is no causal relation between the two. Spinoza says that the body gets coffee all by itself, it is its own physical system.

Let's keep some simple systems: bodies of lizard, etc. Bodies need to be hydrated to live, Spinoza says that hydration is a built-in mechanism of the bodies. Bodies preserve the images of drinking fountain, etc.

Since mind is an idea of the body, it affirms the existence of the body. As the mind is aware of the body, then it endorses it. Are you gonna drink? It's good!

Also notice the first transition. Spinoza says it is not the good drives our desire. It is the desire that makes the action somehow good. So summarize Spinoza's view:

$$\boxed{\text{desire}} \rightarrow \boxed{\text{Good in coffee}} \times \rightarrow \times \boxed{\text{my mind}} \times \rightarrow \times \boxed{\text{move hand}}$$

Intro Leibniz

Leibniz(1646 - 1716) and Spinoza (1632 - 1677), Leibniz is interested in many of the same questions as Spinoza was thinking, and much more traditional and is much different from Spinoza on lots of points. Leibniz could be treated as a response of Leibniz. Spinoza starts on his philosophy by reflecting on comtemporary physics, denies free will, dynamic pattern, etc. However, as Leibniz also wants to make space for the new physics, it becomes problematic for a traditional view of god (work through intellect, act through free will and not necessity, sorta moral judge?), where Spinoza's derivative view of body and mind looks right. He has to demote the physics to make it happen.

Leibniz believe that "good with be rewarded and bad will be punished." Therefore there needs to be free will for these kind of reactions. We also have to be substances, we have to be fundamental beings to be responsible of our own actions. Also gives good a fundamental place in the universe - we do something only because it's good.

For Leibniz, body is purely physics - a "well-founded" phenomena/appearance. On a deeper level this reflects the substance, which are ultimately real.

For mechanistic order(bouncing billard balls), they are mathematical laws. This is also in the order to efficient causes.

Leibniz Apr 25

Leibniz says that the physical world is secondary and phenomenal to a more overall structure, to preserve god.

Leibniz's philosophy was successful and was what Kant dealt with.

Leibniz overview

Moneds: Universal theory of perception and appetites. simple, not composite, use that to explain the animating principle. They don't act on each other, as animating principle acts just on its body. They are substances.

Distinguishing from just a flow of consciousness, the sense of appetite deals with old existing stuff, so it's a much more tight-knit series than a stream.

Leibniz's view on perception: everything in your mind right now down to every minute detail. Ex. ocean waves: every drop of water makes a difference on what you hear, but we can't possibly be aware of every single on of them. French: "petite perception" Or Ex. you spin quickly and all the scenes in front of you.

Leibniz's universe of moneds: level of moneds

1. bare moneds - in stupors
2. Soul, associated with animals + bodies
3. mind - rarest in the hierarchy

Moneds are not bodies, not extended, immaterial. There are infinitely many moneds, but most moneds are these petite perceptions, living in that moment. However, souls are associated with memory and perceptions. Then, the minds, "the knowledge of eternal necessary truth is what distinguishes us from the animals, furnishes us with sciences"

Monads also have appetites(action of internal principle that brings one perception to another), they are actors and strivers - every monad strives for what seems best(good) to do it, or what it judges to be good, so the "good" is coming back to the picture after Spinoza (for Spinoza there was no roles, the substance is doing what it maximally can do). But we don't always get what's the best for us - appetite can't accommodate all perception it tends.

Pre-established harmony

Pre-established harmony explains how moneds assemble into a single world. Big thing for Leibniz, pretty proud dude.

Let's imagine that Socrates is watching a cat chasing a mouse. Everyone of them will have a series of perception and appetite that goes in a long chain. Ex. Socrates perceives P_1 that them knocking over stuff, has appetite A_1 to look, etc.

$$\begin{aligned} \text{Socrates} &: P_1 \to A_1 \to P_2 \to A_2 \to ... \\ \text{Cat} &: P_1' \to A_1' \to P_2' \to A_2' \to ... \\ \text{Mouse} &: P_1'' \to A_1'' \to P_2'' \to A_2'' \to ... \end{aligned}$$

All three of these sequences represent the same event from different point of view, governed by the same law. Notice that moneds only act internally, so the cat's moneds do not interact with Socrates'.

Game analogy: to apply to Leibniz's world of moneds - make sure we are experiencing the same events.

1. same program/software - same physical laws. Mouse doesn't fly, etc.
2. ways of communication

Immediate problem: the moneds don't communicate with each other - how do we get communication? We could suppose that god intervenes by observing the situation and manually put these into Socrates, cat's, and mouse's moneds, but Leibniz thinks its possible but pretty ugly.

Analogy for pre-established harmony: suppose me and Dr. Stevenson play a video game every Friday night but the power went out. Since we both know each other so well, we would predict exactly what the other person would behave in the game. Therefore, even if we suppose we are playing against the NPC, everything still looks the same as if Roy and Dr. Stevenson are playing. No communications needed this way.

Serious pre-established harmony: god knows all the move that the mouse will make ahead of time, so he can pre-program it into Socrates' moneds - traditional theological piece. However, everyone has to strive to do what's the best for them due to the properties of the moneds, which is not auto-pilot and is necessary for keeping the pre-established harmony. The motivation for this theory is his first principle theory - how supremely wise the FP is, wanting his universe to be thoroughly interconnected. For Leibniz, intelligence is part of the story why things are; for Spinoza things just happen automatically.

Role of the laws of physics: we suppose that Socrates, cat, and mouse all exist within a frame of physical order that is coordinated by the laws of physics. However, isn't this moneds interacting with each other? According to Leibniz, the physical order is merely phenomenal and is not real - not any genuine action. Leibniz also believes determinism - state of physics in one time, it fixes all other time of the universe. Leibniz also believes that each piece of matter contains complete info about everything else going on in the universe at that time. Any motion in my hand produces shock wave and affect everything in the universe. Leibniz is saying that, given we have sensitive enough equipment, we could pick up the ripples by this class at alpha centauri.

Leibniz thinks there is a special relationship between each moned and its body. Starting from Socrates, it's kinda like thinking about psychology and appetites. We can look at this picture and ask "which body best describe Socrates' moned?" It has to be Socrates' body. There is a intuitive relationship between the moneds and their bodies. Additionally, Socrates' body and moneds expresses each other completely.

HERE we have the pre-established harmony from two layers: first, each piece of matter includes information of the entire universe of that time; second, the moneds and their corresponding bodies match perfectly.Putting two pieces together, Socrates' moneds perfectly describes Socrates' body, and through Socrates' body we find info about other bodies, all their bodies completely express their moneds. ALL the moneds completely expresses each other, but no communications!

Leibniz also proposes that the world is covered by moneds. A cat is composed by tiny little bodies, and more tinier bodies, etc. Each of the organism has a monad. Moneds at a more macro layer dominates the moneds that are in smaller bodies. There is a infinite nesting of both monad and animals. For objects, there is no monad of its own (dominate ones) since it has no appetite, but Leibniz assumes the mug is composed of many tiny organisms that have moneds.

The body has to be immortal since moneds don't disappear.

Leibniz's Monadology Continued Apr 29

Purpose of the class: Why would anybody believe this theory?

Review: does the table has a moneds? No, it doesn't have any appetite. However, the theory of moneds still apply, as the table is assembled by little organisms that have monads.

For two monads that are in two different places, do they interact? Nope.

Leibniz on his monadology: he thinks he can prove that this formulation is better than any other, but not a strict proof for it is true. Physics is not the ultimate reality.

The way we are going about to prove it: think about Oaky and animating principle (substantial form in Aristotelian tradition, the substantial form of a living thing would then be the soul). We argue the motivation for Leibniz's monadology is to bring back something like the animating principle into the picture.

Leibniz wants to look at what is the reality connected to the physical order. When do we have such a reality to begin with? For example, does the collection of three random things (battery, remote control, Prof. Carriero) form a reality? Or is the collection of a person and Haines hall a reality? It doesn't seem like so - they are not connected (no **unity**), the only connected they have seem to be in my mind stipulating them. ALSO, they don't do anything, aren't active in the world. Leibniz calls random collection like these "mere aggregates." Two themes that Leibniz pushed are **unity and activity**.

Line of thought along activity: to be a reality, one needs to be either a doer or an actor. Things that are inert (number 2, or any abstract object) aren't reality. If we only look at physics without monadology, we don't have activity.????? To have activities, we need to enrich it with monads. Question is: why isn't physics just perfect as it is? Leibniz wants to bring in something simple (no parts) and intelligible to supplement the contemporary physics that Descartes created using extensions. What are those laws of nature that we learn from experience? How did we show that extended mass wasn't sufficient? How does bring force help us in metaphysics?

Aside: Descartes' Physical World and Physical Laws
Descartes: the essence of matter is extension - pretty firm. Descartes also has to allow for motion for those extension to move - kinematic properties. He does not agree that there are dynamic properties that have to do with force. So Descartes, mobility or movements? Yes! Forces? Nope. But afterall, why doesn't he incorporate forces? He thinks the only thing that human mind understands is geometry, and kinematics is the movement of these geometry - so should be understandable. Similarly the history of body travling through space and time. Also, from his FP theology, God would not create us in such a way that we can't understand ultimate reality about matters. These thoughts naturally lead to certain laws of motion - the body can't go through each other and there can't be gaps in extension. Another conclusion from FP, God will keep the same amount of motion from one time to another - some constancy in the amount of motion. Descartes' quantity of motion: a volume times a scalar (not a vector! this is going to cause problems for physics!). He proposes the conservation of quantity of motion, not momentum...oops:)

Leibniz thinks Descartes got them wrong, Huygens got them right! Some sort of conservation of momentum. Leibniz see that there is a quantity mv^2 being conserved, but what does it represent? There are something more to motion than occupying space - energy! There has to be an effort - force/trying/exerting in the physical world. However, Leibniz thinks the only things that exerts effort are animals - but these billard balls in any collision is made up by little organisms and they are exerting the effort to move. So what happens in a collision inside one of those organisms monad's series of perception and appetite is the following:

$$\text{Billard ball} : P_1 \to A_1 \to P_2 : \boxed{OUCH!} \to A_2 : \boxed{\text{Let's get out!}} \to ...$$

The moneds gets a big OUCH when collided, its appetite wants to fight back, and gets back to where it was before. One more evidence that physics is merely phenomenal - there are more underlying reasons behind this energy and momentum stuff.

Line of thought along unity: In Aristotelian tradition (hylomorphism), Oaky has an animating principle. However, the animating principle does not flow freely in the world, it only animates suitable matter. Concern: if Oaky is a composite matter, then we are compromising its fundamentality - what if the component are substances? Substances has to be fundamental, it has no parts. The animating principle is also simple. If we cut off something, the animating principle is still there.

From here we have two flavours derived from physics: one is the planum/extension view supported by Descartes, Leibniz, and Spinoza; the other is the atom + void/vacuum view supposed by Hobbes, Locke, Boyle, etc. Leibniz says that "atoms are contrary to reason and furthermore still composed of parts." Leibniz's motivation: there is no jump in nature. The extension, on the contrary, could be reduced to a mathematical point, though Leibniz regards as not real beings.

Leibniz: Freedom and Necessity & Complete Concepts and Nature of Truth May 2

For Leibniz: freedom precludes necessity, needs to make room for things not being necessary - contingency.
For Spinoza: everything happens for absolute necessity. the universe is the product of a necessary being acting in a necessary way - no room for things gone otherwise. If interested in freedom, this could be an issue. His freedom depends on either internal or externally determined, never underdetermined.

Leibniz denies both necessatarianism and free will from Spinoza. Broadly, unlike Spinoza, Leibniz believes a last judgement of a sort. "The global will be destroyed by the governing minds - punishment and rewards of others require it"At this point, Leibniz is just about the same with other orthodox theologists.

One thing that every FP theorists do: how do free will incorporates itself into orthogox theology? It's common to believe that god has complete knowledge about what we are going to do before even doing it, how is it contingent to me to have free will/action?

Leibniz faces a new problem: everyone's more or less deterministic like Spinoza, he is deterministic too like Spinoza. (Laplace's demon kinda thing) as the physics express the monads perfectly - monads are also deterministic. That is, given any complete information about a state of a system,

we can calculate everything going forward and backward in time.

Subtle difference to notice between Spinoza and Leibniz: they both agree that the produced/created order (face of the universe) is thoroughly deterministic, for Leibniz even just a complete information about a piece gives us the rest of the universe. However, Spinoza thinks it is an absolute necessity for god to generate this best face of the universe, and Leibniz thinks god is determined in making this world - but isn't necessitated, he could have made another order. "Deterministic" and "necessary" are two different things. Necessary means that it is the only order it could have been. Deterministic means we can just have the whole information for the order. It seems like there is a difference between these two, but what is the difference?

Another difference: for Spinoza, physics is running the show. Mind is a picture of the body and the physics of the body supplies content for the mind, so lots in our mind is due to the body. For Leibniz, monads the basic and the minds and physics is the way that the monads' effort. Making physics first would be upside down, since metaphysically the monads comes first.

Does Leibniz have a correct picture of free will that supports some sorta last judgement from the above? Leibniz think freedom involves three things:

1. spontaneity: "comes from within"
   monads are internally active and it doesn't interact with other monads, they act internally one. They aren't puppets but they really do think - mouse is driving to get away from the cat. Leibniz wants to distinguish himself from Malebranche's occasionalism: god is the only true causal agent in the universe. Things happen because god establishes certain rule for himself to follow. Gods have physical rules, rules for relationship between the body and the mind, AND rules connecting thought to choices, where will comes in. Thoughts are occasions for the choices. Leibniz is similar to Malebranche in lots of ways. However, monads are true agents, where Malebranche thinks these can easily be god's puppets.

2. intelligence
   Only some monads are intelligent, those are free according to Leibniz. Motivation: in order to be morally responsible, one needs to understand what one's doing and difference between right and wrong, for rewards and punishment.

3. contingency
   In Medieval philosophy, a traditional picture of freedom is that: suppose we fix the external influence and internal state (psychology) of an agent, it still does not settle if this agent does or doesn't do A. This view is no more open to Leibniz than Spinoza. Recall Leibniz's monads, completed by their perpection and appetite, bear all information about the future and the past. His physics also supplies a deterministic view of the order, so there doesn't seem to be a place for contingency. QUESTION: HOW DOES IT FOLLOW???However, notice from this we can't fix an agent's internal state for Leibniz.

Special way that Leibniz raises the question:

Notion and Concepts

Leibniz's substance: An individual substance has a complete notion (concept) which includes/gives a reason for all of its predicates. Ex. inside Prof. Carriero's concept we can find out about he will

teach 100C and pace back and forth, etc.

Leibniz's truth: In an affirmative truth ("S is P") the notion (concept) of the predicate ("P") is "in some way" contained in the notion (concept) of the subject ("S")...almost analytic truth? Leibniz uses the example "Caesar crosses the Rubicon at 49 BCE." or the classic "All bachelors are unmarried." It seems like it is necessary for Caesar to cross the Rubicon like for a bachelor to be unmarried...not at all contingent???

The end of the wild goose chase...let's roll back. The above assumes Leibniz thinks all truths are conceptual/analytic. Since analytic truths are necessary truth, all truths are necessary. However, Leibniz's "concept" is not the same as today. Nowadays, we inherited a lot from Kant and Frege, concepts are rules for organizing experiences - sorting principles, are things bachelor? Also concepts are what finite minds can master. Also kind independent from any mind.

Leibniz's concept is much closer to understanding and intelligibility than classification. Moreover, Leibniz's complete understanding has to do with the FP's understanding - complete concept about Caesar is what god thinks of Caesar. Leibniz's concept is more like a "true definition" of Caesar. Therefore, Caesar is a monad, and we distinguish Caesar by the monad's own "point of view." We can imagine a basic plan for the universe, but can be expressed from Caesar's point of view, my point of view, etc. Since Leibniz does not mention the necessary view, we could also imagine another basic plan for the universe, in which we will have another Caesar.

Summary: Caesar's complete concept, i.e the way conceives Caesar, is God's representation of his basic plan for Caesar's world taken from Caesar's point of view. So the concept is NOT something finite minds can get and NOT something to organize experience.

Leibniz's free will & Berkeley May 6

Recall for Leibniz freedom requires contingency - how things could have been otherwise, but hard to see from his system how things could be contingent. A question that Leibniz set up for himself: if for a circle, it is necessary that its $A = \pi r^2$; then how, for Caesar with the same form of predicates, it is not necessary for him to cross the Rubicon in 49 BCE?

We should think the complete notion as a theological representation + quasi-physical representation. It is more or less a logical representation where we put the predicates the same way we would for phil 183.

Leibniz separates the necessary and contingent truths:

Necessary	Contingent
Eternal	Temporal/worldly
Prior to gods' plan	depend on god's (possible) plan
Essence	(possible) existence
Depends on principle of contradiction	Depends on principle of sufficient reason

In a way, the necessary truths form the plan. God cannot make a circle without its area being πr^2.

Two kinds of truths from Leibniz:

1. Concept of Caesar - crossing of the Rubicon
2. Concept of circle - $A = \pi r^2$

Leibniz's theory is that, given some truth, we can analyze it and show eventually if it depends on the principle of contradiction, or the principle of sufficient reason, then we know whether it's necessary or contingent.

Ex. we show something is divisible by 12 is divisible by 4. To simplify the language, we say we want to show if something is 12ble is 4ble.
Leibniz's proof: 12ble is by definition 2ble and 6ble. A definition is 6ble is 2ble and 3ble. So 12ble is 2ble, 2ble, and 3ble. We also have 2ble and 2ble becomes 4ble, so that a 12ble is 4ble and 3ble. Therefore, 12ble is 4ble.

This is a proof for the second kind of concept, Leibniz is really confident that we cannot have the same thing for the first kind of truth. To know the first kind of truth, we would need to know everything else that is connected to Caesar's crossing or Rubicon in this infinitely complex world that god creates. Infinite complexity is not something we can write down in a demo like above. Leibniz does not think with some logical derivation can we find some contradiction to the 1st kind of truth in the infinite world. God conceives the Rubicon crossing through the principle of sufficient reason. So if Caeser did not cross the Rubicon at last, Leibniz would say that he is doing something deeply unintelligible, but not contradictory. This kind of truth has gods decree in the background.

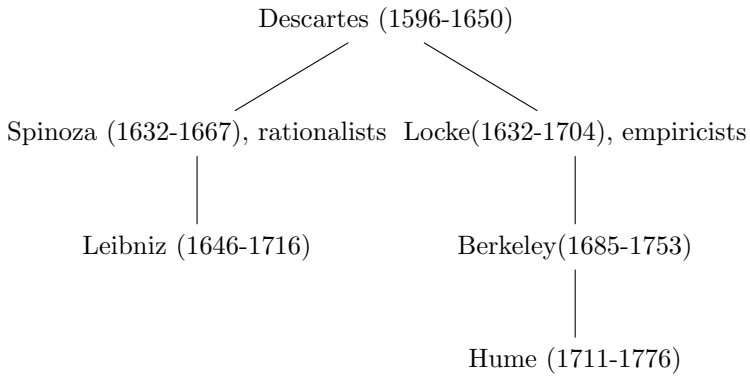
Let's do acting for Caesar for a second: he is considering what to do, as he thinks, the crossing becomes more and more obvious to do as time progresses. Until he actually chooses, all other options are still on the table - it is only the crossing looking attractive. There is no logical argument for Caesar to cross the Rubicon until he chooses. The only explanation can be given by god from his grand plan. Leibniz: "it shows that it is inevitable for Caesar to cross the Rubicon, but not necessary."

As god: god makes the best of all possible worlds, but god wouldn't make a world that's any less, but in principle he could.

What Leibniz's view can and cannot accomplish?
Physical determinism: physics before quantum mechanics, it looks settled that what we would do today. Laws of motion + initial condition decides what we have today. Leibniz's system has a pretty good response to the deterministic time evolution thing. Remember he thinks that god makes physics around my choices just as phenomena, respecting the decisions from my monadic being.

Intro Berkeley

Throwback to the first chart we made on the first day:



Both route brought back by Kant's *Critique of the Pure Reason* on 1781.

The two traditions are derived by the way to look at Descartes. If one perceives Descartes as an epistemologist who brought skepticism to the front of philosophy, we have the empiricists.If one perceives Descartes as an metaphysician on the ultimate structure of the mind and the body, we have the rationalists.

The rationalist tradition concerns with the theological questions - substances, monads, etc. They are en route for a traditional metaphysics to give a theory of everything, that's why they start from FP and all. The new sciences were also important for them - something to do with the metaphysics of what we are.

Indeed, Spinoza and Leibniz care about the ontology, mind-body problem, and traditional theology (FP) theory. To get a theory, we need to start on the big things. The new science was really important for them.

The British empiricist tradition thinks we shouldn't start with the big things. They got from Descartes epistemology. They do mention the existence of god, but of much less importance. Their project is less metaphysics but more epistemological, thinking about the resources of what we can know before doing metaphysics, esp in Locke, starting from small things.

Locke

Just somethings about Locke to set up for Berkeley. Locke is not too optimistic about the extent science could help us - represented by his Corpusculation hypothesis (Corpuscularianism). The world is made of corpuscles running around in empty space, He thinks the hypothesis is a promising direction of science than animating principle, but also quite cautious about how far long we are - so much obvious guess in our knowledge. Ex. colour in our minds, how magnets moves, etc. Science is an improvement for the animating principle, but just reveals how much we don't know.

Most important thought for Locke: if we arrange the corpuscles in a certain way, can they think? Or would there have to be some immaterial subject.

Locke's thought on substances: philosophers got carried away with the idea and offer speculative thoughts which are not well-grounded. Human mind are not ready to investigate the stories behind the substratum (fancy Latin word for "spread underneath") - what carries the blue in a mug, etc.

Piece of Locke's philosophy in metaphysics and epistemology:

Very much on Berkeley's First Dialogue. Suppose we see a stop sign, with a certain surface arrangement (corpuscles) micro-physical structure. The photons bumped into the stop sign spins, bouncing into my mind and causing a nerve motion and "red" idea in my mind. Therefore, we have the qualities in the world, and the ideas in the mind. How exactly does the nerve reception generate the ideas?

Locke: if you consider something like the octagonal shape, the shape in my idea seems to resemble the shape in the world - BUT that's not the case with red, red in the idea doesn't resemble the surface structure. Another thing is that the quality of red in the world seems to depend on the more fundamental properties/arrangement of corpuscles of the particles, which doesn't seem to be the case for shape.

Locke's distinction between qualities: depends on the idea-world resemblance: (i.e. if the idea of q resembles q)

1. Secondary qualities do not resemble: colour, sound, taste, odors, rough, smooth, hot, cold
2. Primary qualities do resemble: Shape, number, size, solidity

Berkeley: First Diaglogue May 9th

The view that Berkeley defends is immaterialism/idealism: all physical materials are ideas. Mind-independent matter or matter independent of perceivers does not exist. Body is simply a collection of ideas. "Cherry is nothing other than conjury of sensible perceptions." Kinda like Leibniz that bodies are objects in the perception of the monads.

By getting ride of matter, Berkeley is getting rid of the materialism that everything is matter, as well as rejecting Locke's view on science that Berkeley regards as pessimistic towards religion, that god hasn't given us enough.

Things to keep in mind for the First Dialogue: assumptions that the interlocutors are making

1. bodies are sensible things
   We should be able to be sensed, touched, etc. Or at least in principle to be able to.
2. sensible things are immediately perceived - Berkeley: "senses do not make inferences."
   Suppose smoke comes after a hill, we see the smoke but not the fire, as the fire needs some inferences to make.

Both look pretty natural, but both cause problem towards the end of the First Dialogue. Recall that Locke refines the definition of the substance to a substratum. Properties such as red, round, size exist in a substratum (spreading underneath). For most of the First Dialogue we have these two assumptions working.

red, round, size, etc

↓

Substratum

What are immediately perceived are the mentioned qualities, with the substratum being the mind-independent thing. So the substratum is not a sensible thing, not immediately perceived. These get dropped by the end of the First Dialogue. The only thing we immediately perceive is our ideas, by perceiving these ideas we indirectly perceive bodies in this world.

Aside: Locke and Kant on Substratum
Locke thinks that the substratum is an empty idea: we just need something for the properties to reside in. Kant is on the rationalist tradition and thinks that there is a use of the idea in the experience.

In the empiricist tradition the idea of substance and substratum drops out pretty much, continues in Hume.

How do you get into this view? Two characters in the First Dialogue: Philonews

1. denies the existence of mind-independent matter (material substance)
2. affirm the reality of sensible things, taken as collections of ideas

and Hylos (matter)

1. affirms the existence of mind-independent matter

Philonews: there is something deeply incoherent about mind-independent matter

Berkeley in the First Dialogue mainly focuses on the **sensible qualities**, the qualities that makes up the cherry, whether they exist independently of the mind or the perceivers. Berkeley think we perceive the qualities of things, not the whole thing.

Berkeley argues that secondary qualities do not exist outside of the mind first, then argues that the primary qualities do not exist outside of the mind either.

Let's focus on the secondary qualities first: imagine my favourite spicy meal. Is that the kind of the thins that only exist in my mind or can that exist outside of world? It's kind quasi-metaphysical question regarding the metaphysical location of the sound, etc. Berkeley thinks that it is observed that these qualities could exist outside of your mind.

Aside: Locke and Aristotle
Recall Locke and his red stop sign: Locke thinks a stop sign has a certain surface texture of corpuscles that spins the light particles, so that when the photon bounces into our eyes it creates the idea red. The texture of corpuscles is the **quality**, and the red stop sign in my mind is the **idea**. The quality exists in real world and has the power to generate an idea. The problem is that it doesn't seem intuitive that there are anything of the idea red that resembles anything in the qualities, and there is something that resembles the shape. Berkeley seems to move the quality part into the mind too - which is the main difference between him and Locke.

Aristotelian tradition: you become in a way identical to what you know. Imagine a snow mountain's reflection into a lake, the reflection becomes in a way identical with the snow mountain. So the mountain has two ways of existing: as the mountain by the lake, or as

the reflection (jargon: species) on the surface of the lake. So, one thing has two modes of existence. In the same way, a fire truck could generate a species into our mind. Different from Locke, the Aristotelian tradition says that what you see is what you get; whereas for Locke the qualities in the world is drastically different from what's in our mind - **what you see is what you get!** For someone to have the red in them when they see the fire truck, it is what it is for one to see the fire truck.

Berkeley holds the third view: ALL of the qualities and ideas are in the mind!! No sensible qualities (primary or secondary) exist in the world.

Argument from the mind-dependence of pain (and pleasure) (pp. 11-13): secondary qualities

1. No unperceiving thing is capable of pleasure and pain.
   pleasure/pain only take place in perceiver/minds.
2. A material substance is a senseless (i.e., unperceiving) thing.
   material substance is not a perceiver, cannot have pain idea.
3. A material substance cannot be the subject of pain. (From 1 2)
4. An intense heat is a pain.
5. A material substance cannot be the subject of an intense heat. (From 3 4)
6. A intense heat cannot exist without a mind (i.e., outside a perceiving thing)

Hylos has a few arguments against the argument: maybe painfulness and heat are two ideas. Painfulness is inside the mind but heat is in the world. Philonews' response: we cannot divide our experience into two parts, you can focus on the painful aspect, but cannot separate the two.

Hylos' second response: only work for intense heat, so it would work for pleasant heat too, but not other degrees of heat. Philonews seems to let that go, but leaves a weird ontology for the heat.

too weak	heat	too strong
only in mind	mind-independent existence (not painful nor pleasant)	only in the mind

which could be a possibility, but kinda like Alice in wonderland...Philonews moves to the relativity argument below. Berkeley leaves it as a false start? something to think about? Berkeley wants to extend the ontology of sensation to pleasure/pain as they should not be separable.

Argument from perceptual relativity (pp. 14-15)

1. The same thing cannot be cold and warm at the same time.
2. Bodies upon whose application we feel a moderate degree of warmth are warm, and bodies upon whose application we feel a moderate degree of cold are cold.
   Put hand into a bucket, if there's a moderate degree of cold, then it is cold, etc.
3. The same bucket of water can at the same time seem warm to one hand and cold to the other hand.

4. The same bucket of water can be cold and warm at the same time. (From 2 3, ing 1)

So, the warmth and the coldness are not in the water. One of the premises are off due to the contradiction. Thermometer? The source is the second premise: temperature is a more complicated thing. Berkeley (earlier) just shows that we cannot tell apart cold or hot just using hands, and in Dialogues this has been ignored. Thermometers are in a certain degree irrelevant: we talk about immediate perception with no references. We only concern the question for whether they only appear in the mind.

Strategy to resist that sensible quantities only exist in perceivers: (notice: secondary quantities ONLY) Berkeley's argument was popular at the time, so how does Berkeley take his argument further than everybody else? They were not trying to show that the sensory quantities only exist in the mind, rather they were used by the defenders of the new science to criticize the Aristotelian theory of sensation - where sensible souls are like mirrors, the image inside a soul resembles what they see. Locke, as defenders of new sciences, rejects that since sensation is a much more complicated matter than mirroring. Locke argues: the painful experience of getting close to fire does not image the fire. Hobbes & Locke: there is something that plays different roles inside and outside the body. So a way to resist will be to say we need to make a distinction the heat as in me and heat in the world.

Berkeley May 13

Recall the three views: Aristotelian, Locke, and Berkeley on primary and secondary qualities' independence of mind.

- Locke: the quality that is in the world does not resemble the idea in the mind.
- Aristotelian: in the snow peak and reflection example, we have two different modes of existence. In the same way, the qualities in real world migrate to our soul. For Locke, Aristotelian view cannot be applied to secondary qualities given the development of the new science.

For Berkeley, we imagine blowing an acute whistle and cause severe discomfort. Could that be outside the mind? All secondary qualities are mixed together with pleasure and pain, and all exist only in the mind, also supported by the perceptual relativity argument. These arguments were widely used by Descartes, Hobbes, Locke, etc, and they use it to refute the Aristotelian resemblance argument, trying to motivate the new science. How does Berkeley take it further and show that these qualities don't exist in the world??

Aside: Hobbes & Locke on qualities
From Hobbes's *Human Nature (English Works, IV, 8)*:
So likewise the heat we feel from the fire is manifestly in us, and is quite different from the heat which is in the fire: for our heat is pleasure or pain, according as it is great or moderate; but in the coal there is no such thing.

From Locke's *Essay*:
Whatsoever the Mind perceives in it self, or is the immediate object of Perception, Thought,

or Understanding, that I call Idea; and the Power to produce any Idea in our mind, I call Quality of the Subject wherein that power is. Thus a Snow-ball having the power to produce in us the Ideas of White, Cold, and Round, the Powers to produce those Ideas in us, as they are in the Snow-ball, I call Qualities; and as they are Sensations, or Perceptions, in our Understandings, I call them Ideas . . . (II.8.8)

Ball's in Berkeley's court now: how does Philnous respond? First we extract the fact that in Hobbes & Locke, heat is **one item** that has two modes of existence as it is in the mind and it is in the world. However, Berkeley/Philonous makes the distinction that there are **two things**, separately heat-as-it-is-in-the-mind and heat-as-it-is-in-the-world. Then, only former is immediately perceived, the latter is not.

Aside: Locke's picture of qualities
In case of secondary qualities (no resemblance), how does the idea represent the qualities?

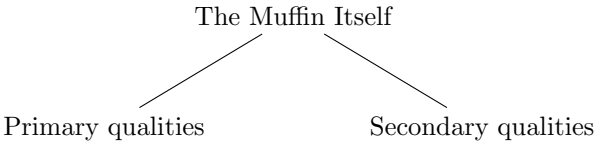
Locke says that there is an idea of a certain type, we call it type-H ideas (the way heat feels). The type-H idea represents the power in the body (power to produce type-H ideas), through rapid movement of particles. We call the latter the qualities.

Berkeley has a hard time to concur this is a one-item view. This goes back to the denial of resemblance view, if the idea and the qualities have not that many things in common, it is hard to think that they are the same thing.

However, there is a small caveat. If we go back to the snowpeak picture, and imagine that there are a few hikers on the snowcap, we still immediately perceive the hikers from the reflection (i.e. we are not making any inferences like smoke and fire).

In the two-item view, which of the item is the real heat, sound, colour, etc?

Berkeley's final point is to prove that all sensible qualities only exist within the mind - the cherry is just a collection of ideas. To see that, we imagine a chocolate chip muffin.



Our question is: how is the qualities related to the muffin? Maybe the qualities exist in the muffin, OR the qualities are caused by the muffin, OR Berkeley: the qualities are the muffin. So far we have only looked at the secondary qualities that only exist in the mind, let's see about primary qualities. It looks like we can associate the pleasure/pain with sensible qualities.

Imagine a cylinder: if I hold it up, people from different locations in the classroom see different shapes (primary qualities). Berkeley thinks there is a perspective component associated with the sensory idea of the shape. If we focus only on immediately perceived shapes, generate the shape from all the snapshots we see is a rather complicated matter. No on snapshot is privileged, none of them is the true shape. So shape looks like another sort of mental construct, just like hot and cold. Berkeley also argues that the primary and secondary qualities are inseparable (the edge of colour makes up the shape of muffin, etc)

Berkeley May 16

Berkeley starts by arguing that the secondary qualities exist only in the mind, later expand to the primary qualities as well. Berkeley thinks his argument is pretty much over - all materials turn out to be mind-dependent materials. We have no way of thinking about bodies, except for sensible quantities, which gives us contents. We cannot form a determinate idea of a body.

Hylas argues that for a muffin, the sensible qualities like the chocolate taste, brown colour, etc are indeed mind-dependent quantities. However, borrowing from Locke's view that they have to exist from the substratum, they cannot flow free. Although substratum is insensible, it exists in the world.

Philonous: if so, then substratum also needs a shape. Since no quality is self-supported, we need another substratum with a substratum shape.

Master argument: Philonous challenges Hylas to conceive something unconceived. Berkeley agrees that we can form an ambiguous/indeterminate thought that are without sensible qualities, but the thought would be empty. Hylas: I can think of a house! However, a house involves all the shape, size, etc which are mind-dependent.

Some objections

Innatism: Descartes and Spinoza think that we have the innate resources for forming dterminate conception for unconceived things, so not all experience comes from sense experiences.

Abstractionism: Aristotelian people rejects innatism, but believe the minds have the power to extract universals from experiences, and apply the universals to the individuals.

Berkeley rejects both: innatism rejected by Locke's *Essay* so Berkeley takes it for granted, and for the second he thinks is just a way to use concrete thoughts.

Immediate perception

Berkeley thinks **all perception is immediate**. Nothing could be like a sensible quality, besides a sensible quality.

We imagine an original (Archetype) in the world: a table. There is an idea of the table (copy/image/resemblance, or Ectype). Hylas compares these two: the original and the idea. We directly perceive the idea, and by that, we indirectly perceive the originals.

Criticism of this view: seeing Caesar's statue will make me think of Caesar, fair enough, BUT it really doesn't mean I am perceiving Caesar. Furthermore, it invokes other memory and experience about Caesar.

Second Dialogue

Hylas and Philonous are on the same page that sensible things only exist in the mind. Hylas: we need mind-independent matter to explain how we get our ideas; also for bodies to be real, we need a real existence outside the mind. Hylas thinks he has to deny the reality of bodies - Philonous: a skeptic! Philonous rejects he's a skeptic since he doesn't allocate the existence of the body outside the mind. Philonous also thinks that the beautiful world is a result of a higher mind, something human is responsible for. The sensible ideas are caused by a higher intelligence - god. Berkeley believes the existence of these qualities, but channels this to support the existence of god.

Hume *Treatise Part I* May 20

Hume was a good writer! He uses his literary skills to overcome philosophical difficulties - went to University of Edinburgh. *Treatise* in 1739 when he was 29. Some background: Locke's *Essay* wasn't part of the classes at Oxbridge, so Scotland and Ireland is much more onto the British Empiricist tradition. Fun fact: he wrote the *Treatise* to be famous - Newton of the mind. He claims people should read the *Inquiry* for his philosophy, but let's not do that:) in his *Inquiry* he doesn't mention his associated psychology theory.

Intro to the *Treatise*

The project of the *Treatise* is the project of "science of man". The general consensus of science is to grab the essence, and use the consequences of that essence. Ex. from the essence of a triangle, it follows or flows properties like $A = \frac{1}{2}Bh$, etc. For Locke, he is pessimistic in thinking we cannot ever get close in getting the essence. We might have expected him to give an account of the essence of the mind and its essence, but not what happened. He doesn't think he can or he hath to. He thinks the essence of body is unknown to us like the external world - we need some empirical way, not from first principle.

Newton and his gravity greatly influenced Hume, but this law of gravity does not give an account of the essence of the body, etc. We only can verify from the data that it holds. "I have not been able to discover the cause of the gravity from the phenomena, and I frame no hypothesis." from *Principia*. So Hume also say he cannot give an essence, just phenomena and try to generalize to principles.

Looks like Hume was a founder of empirical psychologist? He is also a philosopher. It is not only psychology in a sense that he tries to show some nature of human understanding, which is a distinct philosophy project.

Hume thinks the triangle example is a good model for mathematics - a link between our thoughts, or **relations of ideas**. However, it doesn't apply to **matter of facts**, or today, empirical evidences. He thinks there are two kinds of necessity we are confusing: the necessity of mathematics comes from the impossibility to think otherwise - some properties of triangles cannot just be thought otherwise, while the necessity of gravity is different. We can imagine when we let go of a marker, we can imagine it floating. Necessity in the case of gravity must come from somewhere else other than the impossibility to think otherwise - that will be the topic of the *Treatise*.

Baby Empirical Psychology

Hume thinks all thought involves **perception before the mind**. He then divides perception in two ways: **simple & complex, impressions & ideas**.

	Simple	Complex
Impressions	Smallest dot on the board NOW smallest unit of sound	white area on the board (visual) whole sentence(sounds)
Ideas	Smallest dot on my yogurt EARLIER	Holmes in living room at 221B Baker

Impression & Idea: The impressions have the most force and vivacity; the ideas are relatively faint and languid. The computer in front of me is more "vivid" than my breakfast this morning. So lots of stuff in impression are what we are perceiving. "Smallest" categorized by an experiment in Book I: if we draw a dot and walk away, there will be a moment where we talk one more step and the dot will disappear, kinda like a pixel.

Simple & Complex: admit of no distinction (distinction in sense of divisible, in simple objects) or separation. Complex is made up of many simple ones. For example, if we get a block, can we make distinction. Hume: yes, we can divide the bodies up! What about the shape and the colour, any distinction? That's not what Hume means distinction: it's more like chopping and dividing.

Back to the pixel thought, how do those pixels all connect to each other? There should be a glue to glue them together, as well as the gap between visual and auditory experience. So it looks like that impression comes from ideas, but we have impressions that doesn't correspond to ideas. We restrict our idea to the simple side since the correspondence is closer.

Derivation thesis: that all our simple ideas in their first appearance are derived from simple impressions, which are correspondent to them, and which they exactly [re-present]. There is enormous correlation between simple impression and simple ideas.

Moreover, he seems to agree that simple ideas just resemble the simple impressions, as it can never be truly a representation relation.

He comes up a counterexample to his own principle: **Hume's Missing Shade of Blue**: imagine we are at a paint store since we want to paint our room blue. We are interested in all spectrum of blue.

$$b_1 b_2 b_3 .... b_{998} b_{999} b_{1000}$$

These stand for all the blues we have experienced in our lives, and let's suppose I have never experienced b_{560} to b_{600}. So my blue looks like

$$b_1 b_2 b_3 ... [\text{missing } b_{560} \text{ to } b_{600}] ... b_{998} b_{999} b_{1000}$$

Now if I get present to the whole spectrum. Hume thinks that two ways could happen: either I don't notice the missing shades, or I can construct the missing shades. Say, if I construct b_{543} in my mind, that's an idea without impression. A case directly against derivation principle. Hume thinks that he's onto some first approximation, needs to add stuff but no need to dump the whole theory.

How Hume uses the derivation principle: if we have an obscure concept, it is usually complex.

Our method of making it sharper is to separate the complexity into components parts (simple ideas), then look at simple impressions that gives rise to it.

Hume *Treatise* May 23

We carry on with the distinction:

1. force + vivacity:
   Imagination - faint and languid
   Memory - somewhat forceful and lively
   (impression the most forceful + lively)
2. Order and form:
   Ideas of memory is restricted to "order and form" of impressions, not so close with ideas and imaginations

Hume's three laws of association: fundamental glue in the mental world, to distinguish that we are not just imagining things. These three principles hold our minds together. (Hume's associationist psychology)

1. Resemblance
   Seeing a poster of Westwood and seeing Royce
2. Continuity in space and time
   Going from one space in time to another place in space and time continuously - won't be discontinued pixels!
3. Cause + Effect
   Seeing titanic hitting the iceberg, then it sinks

These principle run/associate in the mind, not anywhere else, that's what we mean by association. When we think of a triangle, we think of three sides, constructions we can do, its internal relations in a rational way through reason. What lots of philosophers call "rationality", Hume thinks depends on our psychological association.

Hume's three principles differs with Newton's gravity: Hume's is not without exceptions, it marks general trend.

Knowledge and probability

Hume's account of causal inference or empirical understanding. *Hume often uses the phrase reasoning - however it is not reason to get us to conclusions, it is our habit.

Say you see flame near ice, and think to yourself that the ice is going to melt.

$$\boxed{\text{Flame near ice}} \rightarrow \boxed{???} \rightarrow \boxed{\text{It's going to melt}}$$

Hume is interested in this transition and calls this transition **inference**, it is affected by association but not rational insight. Hume wants to deny it is reason that is making this transition.

We get knowledge by comparing ideas - there are seven ways we can compare ideas. Hume divides them into two groups:

1. Resemblance
   You resemble yourself
2. Quantity
   $2 < 3$
3. Quality
   It is redder
4. Contrariety
   Basic conflict between existence and non-existence, destorys each other

Second group:

5. Time and place
   Dodd is 5 miles from Getty
6. Identity
   This is the same chair as last Friday
7. Cause and effect
   Plunging causes the explosion

In case of group I, all we need to tell if the relation holds are the ideas themselves. These relations give knowledge with certainty. In group II, ideas are not enough to tell if the relation holds include everything that's going on in the world and the vast majority of knowledge. Group II also depends on cause and effect.

Explicating the relationship between cause and effect: we should break them down to components and see if they are obscure. If yes, then we look at the impression caused.

We take an cause/effect relationship example: billard ball striking another billard ball at t_1, the first stops and the second moves at t_2. We have a new motion existing in the world. Looks like a cause + effect, the striking causes the new motion. Some weird looking things:

1. cause + effect are contiguous in space and time
2. cause in prior in time to the effect

However, it doesn't quite get us causality. I could have my hands reaching for an alarm but ultimately being a second late. My hand was contiguous and the action was before, but there is no connection. Hume: there should be a **necessary connection** between cause and effect, but none displayed in our example above.

The derivation thesis shines light on this part: if want to figure out necessary connection, we need to figure out what impression is causing the necessary connection idea. At this moment we don't know how to get this, so we are kinda lost.

Hume drops this and looks for two different questions:

1. "For what reason we pronounce is necessary that everything whose existence has a beginning, should have a cause?"
   Kinda principle of sufficient reason - it questions the PSR, but doesn't falsify it. Hume wants to show that it can't be proved.

2. "why we conclude, that such particular causes must necessarily have such particular effects; and what is the nature of the inference we draw from the on to the other, and the belief we repose in it?"

We originally asking how the cause + effect in the world, but Hume's questions above shifts into our mind - why is our mind doing something like that?

Two important theses for Hume's discussion on the PSR:

1. If something is either intuitively certain or demonstratively certain we cannot imagine its opposite

2. If ideas are different $\rightarrow$ the imagination can distinguish $\rightarrow$ the imagination can separate the ideas

1 Hume *Treatise* May 27