Political Philosophy

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1 Political Authority

Question. Was sollen die Theorien des 'Natürlichen Vorrangs' und der 'Herrschaft infolge besserer Einsicht' erklären und wie unterscheiden sie sich? Geben Sie außerdem einen Vertreter für jede Theorie an

The theory of natural subordination states that some characters of individuals, which allow them to prevail on the other on a practical level, are also those that give them allowance to govern on a moral/political level, this theory has been defended in the Politics by Aristotle. On the other hand, Plato notably argued in the Republic, that those who shall take decisions in a society are those that are most apt to do so, i.e. those people educated and prepared in the relevant fields, at his time the only class with those features were the philosophers, today we may see similarities with the technical governments.

Methodological Anarchism : this is an hypothetical state (of nature) in which individuals are not organised in any institution or political structure.

2 Thomas Hobbes

Alienation Contract The Hobbesian contract is also called an alienation contract in which individuals give away all their rights. On the other hand the Lockeian contract is called Agency Contract.

In the field of normative philosophy, Hobbes project was to establish solid philosophical foundations to the legitimacy of political authority via sound arguments. The personal motivation for this project is to be found in the fact that he lived through very unstable political times, for instance he witnessed the English Civil War. This experience brought him to the conclusion that living under peacefully any political authority, no matter how tyrannic, would be still better than a civil war like the one he witnessed. He therefore aimed at establishing that a necessary condition for peace is political obedience. The main argument he provided for supporting the legitimacy of political authority can be sketched as follows

- 1. There are no political authorities
- 2. If P1, then there are frequent conflicts
- 3. If there are frequent conflicts, people find themselves in an increasingly adverse state
- 4. If the state of well-being of the people reaches a certain level of negativity, then people would want to find a way to end this state of conflict since they are rational actors and want to maximize their well-being
- 5. One way to end this state of chaos for humans and war is to establish political institutions governing humans and bringing order
- 6. Therefore, rational people end the state of nature and sign a social contract enabling them to live in peace

This kind of argument, exploiting a mental experiment where there is no political rule, was posthumously denoted as methodological anarchism.

2.1 State of Nature

The first step of Hobbes' argument is to argue that living under no political authority, i.e. in the state of nature, would be detrimental to humans. To do so, he assumes that there is only one *right of nature* describing how people would behave: the right of an individual human to survive and preserve their well-being. However, what counts as preserving the well-being of a person is determined only by the individual in question and hence it has the potential to be extended to anything, a right to all things.

SEP adds that there is also a principle of practical rationality := seeing anything as a neccesary mean to achieve the ultimate objectives of an individual.

Given that the right of nature leads to a right to all things, but resources are limited, the state of nature is a state of war of all against all.

2.2 Laws of Nature

The first three laws of nature of Hobbes are¹:

- 1. Every person shall pursue peace, insofar they can hope to achieve it. Only if they cannot attain it, they are allowed to try to initiate conflicts.
- 2. Every person should be ready to renounce to their *right to all things*, given that also other individuals are willing to do it.
- 3. People should keep their contracts/pacts(?)

Prisoner's dilemma is close to the Hobbesian contract, though cooperation is never a *rational* conclusion in the prisoners Dilemma, while in Hobbes that is the crucial point, one might state that the Hobbesian Laws of Nature are in fact a priori (Sinja did that in the corrections).

Inability counterargument Jean Hampton states that the Hobbesian theory fails since the sovereign is in fact not absolute, this is because the citizen can in fact rebel to the sovereign when he fears for life. For the Hobbesian theory to work, Hampton claims, the sovereign should have power on everything.

Locke's reason-based counterargument Locke states that there a rational person has no reason to prefer the Hobbesian state to the state of nature, since in both the individual will live with fear and without any rights which he can hope to be respected. Hence, he concludes, a rational subject will never conclude to give that much power into the hands of a sole man.

3 Locke

An important principle by Locke is called *proviso* which states that you can have property as long as you manage to leave a respectable amount to others too.

Agency Contract in Locke the agent is allowed to *negotiate* the rights he want to keep in order to get to some common goal of the society, this is the sense in which the individuals get to a contract from the state of nature. It is opposed to the Hobbesian *Alienation Contract*.

¹SEP: Hobbes argues that the state of nature is a miserable state of war in which none of our important human ends are reliably realizable. Happily, human nature also provides resources to escape this miserable condition. Hobbes argues that each of us, as a rational being, can see that a war of all against all is inimical to the satisfaction of her interests, and so can agree that "peace is good, and therefore also the way or means of peace are good". Humans will recognize as imperatives the injunction to seek peace, and to do those things necessary to secure it, when they can do so safely. Hobbes calls these practical imperatives 'Lawes of Nature', the sum of which is not to treat others in ways we would not have them treat us. These 'precepts', 'conclusions' of reason are 'eternal and immutable', always commanding our assent even when they may not safely be acted upon. They forbid many familiar vices such as iniquity, cruelty, and ingratitude. Although commentators do not agree on whether these laws should be regarded as mere precepts of prudence, or rather as divine commands, or moral imperatives of some other sort, all agree that Hobbes understands them to direct people to submit to political authority. They tell us to seek peace with willing others by laying down part of our 'right to all things', by mutually covenanting to submit to the authority of a sovereign, and further direct us to keep that covenant establishing sovereignty.

Critique to Hobbes

First Locke underlines how Hobbes gives little priority to the individual liberties and rights, which, as he claims, must me much more crucial to the rational subject, in particular:

- For Locke the Hobbesian society is not better than the state of nature: we take the right to kill us from the people around us to give it to a King.
- Rational subjects would never decide to give that much power on their own lives to another man.

Law of Nature God created the man in the state of nature which has the following Law of Nature:

- All people are equal and free (not in the Hobbesian sense).
- You have property and are obligated to respect others' properties.
- You must punish transgressors of the Law of Nature.

Even in this more "civilised" version of the state of nature, there are clear disadvantages for people, in particular:

- There is no recognised and common distinction of right from wrong, i.e. civil laws.
- There is no judge, we cannot pick someone that decides what is right.

Only the power to punish is then given to the sovereign and that is not a irreversible decision (like for Hobbes), in case of little satisfaction the society can decide to revoke its power and change the sovereign.

Question. Was ist unter John Lockes 'Law of Nature' zu verstehen? Wie unterscheidet es sich von Thomas Hobbes 'Laws of Nature'?

Locke's law of nature is the moral maxim that we shall preserve the most of humanity, it states that liberties and properties of others must be respected and also that transgressor of these precepts shall be punished. It is clear that the Lockean maxim is God given whereas the Hobbesian laws are seen as a necessary (rational) statements on individual's behaviour. The Hobbesian precepts indicate a way how individuals might be able to *exit* the state of nature which the author uses to go further with his argumentation.

Consent

For Hobbes it was an active agreement taking place in a group of people living in the state of nature, as soon as everyone is ready to give up their right, I will do the same.

On the other hand, for Locke, it is far less an active behaviour, in fact, one can be part of a Commonwealth only once you have already given your consent, in particular:

- To be part of a Commonwealth you need consent of any individual
- Once you already have such a Commonwealth, the decision process must consist in a *majority* vote.

Consent is distinguished in two sorts:

- *Express Consent* is the willing participation to a society
- *Tacit Consent* is given once a person is implicitly taking advantage (e.g. living peacefully) in a society

Hume's Critique To the Lockean claim that, only be living in a society, the individual is already giving a form of tacit consent, Hume criticises with the following argument: there might be no alternative for the individual, is the consent does not follow from its will (because of lack of any alternative), then we cannot talk about consent.

Kant

We may interpret the former results in contract theory in two ways: *factually*, i.e. something that actually happened, or *hypothetical*, i.e. it is nothing more than a thought experiment. First Kant has stated that consent to a society is hypothetical: the social contract is not an historical fact, it is an idea of reason.

Kant's Practical Philosophy Only good will can be good, nothing is subject to moral judgement other than will. The moral rule is rational, that is the categorical imperative: "I should never behave other than as if I would myself desire, this must be a general maxim.". Three are the principles by Kant: Freedom, Equality and Independence/Autonomy.

Kant vs Hobbes he shares with Hobbes: citizens have no right to rebel to the sovereign (solution to regress). He does not share with Hobbes: the civil society is no construction in which citizens have no right towards the sovereign, among those rights of the citizens we find freedom of thought and publication in order to make unsatisfaction of the sovereign public.

Methodological Contract Theory

Hypothetical Justification it has application in different fields: Political Philosophy, Social Ethics and Individual Ethics. In political theory, as in Kant, it states that each individual accepts the contract given that some conditions are respected, in case they will not, the contract (and hence the obligation) will not be valid.

Constructivism

Is divided in three different categories:

- **Contractarianism**: moral principles result from contracts rationally originating from some maximisation of utility (Hobbes).
- **Contractualism**: moral principles result from the union of a multitude of rational individuals (Rawls).
- **Constitutivism**: moral rules are constitutive rules of a praxis from which individuals cannot escape. (Habermas)

Circumstances of Justice is an idea developed by Hume and states: justice has its origin in egoism of limited resources. In the case in which there is enough for anyone's desire, there would be no reason to talk about justice. Locke, on the other hand, believes that God gave us enough goods but that justice is still a crucial concept. The Hume's argument shows (i) that some political structures are better than others (since there is a need to talk about justice) and (ii) that there is a multiplicity of just political systems, in fact Rawls book is called only "A Theory of Justice".

4 John Rawls

Rawls first draws the distinction between:

- Those theories that allow a plurality of different and opposing, and even incommensurable, conception of the good (Plato, Aristotle, Christian tradition). A distinct definition of good is needed in order to define a just state. The simplest forms of Utilitarianism also want to measure utility with one sole parameter, i.e. it must be the same for all.
- Those theories that hold that there is but one conception of the food which is to be recognised by all persons, so far as they are rational (Locke, Kant, J.S. Mill). Those hold that general affirmations on good are not possible.

Pluralism Rawls sees himself about in the middle. though more on the pluralist side: he claims that each person must be free to consider a proper life plan, values ecc. Though conflicts must be resolved in a civilised and rational way.

Advantages of the pluralist approach is that it seems more realistic, people actually have different conception of good, a disadvantage is that matching the multiplicity of goods in a sole society may be difficult.

Goods

In order to construct a just state we shall find a legitimate way to distribute material and immaterial goods. There are some that must be distributed to all people those are the primary goods.

Primary Goods All individuals, no matters which life plans they have, need the primary goods to fulfil their basic needs, those consist in rights and liberties, opportunities, income and wealth, and the social bases of self respect. Here is a list of those:

- 1. Basic liberties: freedom of thought, right of personal integrity, political participation. Liberties to form a conception of good. Right to have a conception of justice, free political and social conditions.
- 2. Liberty of moving, of choosing the job and of having a fair and equal chance to compete with the others.
- 3. Legitimate concessions of power and privileges corresponding to the proper position (e.g. responsibility in offices).
- 4. Salary and properties.
- 5. Right to self esteem.

Rawls' Rules

- 1. Each person is to have an equal right to the most extensive total system of equal basic liberties compatible with a similar system of liberty for all.
- 2. Social and economic inequalities are to satisfy two conditions:
 - (a) They are to be attached to offices and positions open to all under conditions of fair equality of opportunity;².
 - (b) They are to be to the greatest benefit of the least-advantaged members of society (Difference Principle)

The so-called **Lexical Order** states that³: 1 > 2a > 2b

Prioritarianism The poorest people in the society have priority over the richest in the distribution of goods (in order to make better the worst case scenario from the original position).

Original Position

Rawls imagines the politicians to be in a situation in which they can make all rules of a society but cannot access to any information on themselves and know that they will be part of that society. Under this Veil of Ignorance Rawls believes that people will not chose any of the popular theories of his time (utilitarianism mostly, but also libertarianism). The only rational conclusion they would get to, he claims, is the **Maximin** rule stated above. He gets to this conclusion assuming also that (i) the politicians have **no access to probabilities** and that (ii) people are **risk adverse** (both of those assumptions have been subject to multiple criticisms).

 $^{^{2}}$ The just savings principle requires that some sort of material respect is left for future generations. Although Rawls is ambiguous about what this means, it can generally be understood as "a contribution to those coming later".

³https://en.wikipedia.org/wiki/A_Theory_of_Justice

Circumstances of Justice The circumstance of justice are *the necessary background conditions for having a just society.* If they did not hold, 'there would be no occasion for the virtue of justice' (A Theory of Justice, 110). Note that justice for Rawls comes down to how to distribute the benefits and burdens of social cooperation as well as about the rights and duties that persons should have in the basic institutions of society. Rawls in fact also characterizes them as 'the normal conditions under which human cooperation is both possible and necessary.' since

They describe the relations in which individuals stand to each other regardless of their particular motivations. There is in fact no assumption that people are egoistic, as for Hobbes.

Rawls divides these circumstances into two kinds:

- 1. objective
- 2. subjective

The objective circumstances are the following: individuals share a clearly defined geographical territory; they are roughly equal in physical and mental powers or, at least, their capacities are such that none can dominate the rest; they are vulnerable to attack and are subject to having their plans blocked by the united force of others; and they coexist in a condition of moderate scarcity, which means that resources are neither extremely abundant nor extremely scarce (A Theory of Justice, 109-110).

The subjective ones are those pertaining to the individuals in the society and their cooperation. Individuals must have competing interests which cause them to all lay different claims to the resources available. When these competing interests come into conflict with mutually advantageous social cooperation, a need for the concept of justice arises.

Maximin Rule Maximin is a rule for making choices under conditions of uncertainty (or risk), that is, when one must select from a range of options, each one of which may result in various outcomes. Maximin says that one should identify the worst possible outcome for each option, and then select the option for which the worst outcome is least bad. It thus represents an extremely risk-averse or pessimistic standard of choice. Rawls recognizes that it is 'clearly . . . not, in general, a suitable guide for choices under uncertainty' (A Theory of Justice, 133). However, he argues that because of the highly unusual features of the original position, it can be 'useful as a heuristic device' (A Theory of Justice, 132) to think of the parties there selecting principles of justice on that basis.

Reflective Equilibrium is a method that establishes what to do in the case in which our intuition goes against the rational principle derived with the method of the original position. Given this contrast "by going back and forth, sometimes altering the conditions of the contractual circumstances, at others withdrawing our judgments and conforming them to principle, I assume that eventually we shall find a description of the initial situation that both expresses reasonable conditions and yields principles which match pour considered judgements duly pruned and adjusted. This state of affairs I refer to as **reflective equilibrium**".

This method is though not the one used by Rawls to justify his claims (rules and primary goods), he uses instead the original position, though reflective equilibrium can be used to justify most of his claims.

5 Utilitarianism

Rawls defines it as: "The creed which accepts as the foundation of morals, Utility, or the Greatest Happiness Principle, holds that actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness."

Every individual must maximise a certain value in advantage of the society. We can classify members of this class by looking at three aspects:

- 1. Value Theory: what is the value each one should try to maximise?
 - (a) Hedonistic utilitarianism
 - (b) Preference Utilitarianism
 - i. Actual preferences

- ii. Preferences of the individual if he was well informed
- 2. How should we sum it up (e.g. (Harsanyi) average or (Bentham) sum?)
- 3. Should the focus be in the consequences of each behaviour?

Harsanyi's Consider all roles of the society and compute the benefits for each. Then make the average (not weighted!) for each of those values, who maximises it wins!

Every individual can land with the same probably to each position in the society, there is no information on probabilities and this is the only conclusion we can get to.

Rawls' Replay Does not respect the *Separateness of Persons* principle: "Utilitarianism does not take seriously the distinction between persons"

6 Sen's and Nussbaum's Capability Approaches

Critique of Rawls: Focus on what people can do with goods, not just the fact that they have them.

The capability approach makes two normative claims: *First*, the claim that the freedom to achieve well-being is of primary moral importance and, *second*, that well-being should be understood in terms of people's capabilities and functionings.

Sen's Definitons:

Definition. Capabilities = Beings + Doings, that are possible to achieve for an individual (Depend on the personal disposition AND the actually provided opportunities)

Definition. Functionings = capabilites that have been realized, (realized Beings + Doings)

Definition. Capability-Set = The set of functionings(!), that a person can choose from

Sen's Version The goal is, to give the individual free space and opportunities to realize those capabilities (help turn capabilities into functionings). The definitions by the author are different, capabilities for Sen are very concrete actions that we could do. For Nussbaum those are more abstract, anthropological and normative. Sen was more sceptical that we could do such anthropological claims

Nussbaum's Version Like Aristotle, Nussbaum believe that the state needs a firm theory of the *good living* as a foundation. Hence he gives a basic structure of the men's life and basic abilities. On one hand we should be given food, though we should be able to eat it correctly (e.g. not excessively). She then gives a list of the ten *Central Capabilities*: 1. Life 2. Bodily health 3. Bodily integrity 4. Senses, imagination, and thought 5. Emotions 6. Practical reason 7. Affiliation 8. Other species 9. Play 10. Control over one's environment.

7 Libertarianism

Nozick

From Then&Now.

"Individuals have rights, and there are things no person or group may do to them (without violating their rights)." He believes there are some rights that cannot be violated, similarly to Rawls. "Anarchy, State and Utopia" is a response to Rawls.

Part I: Rights The individual is primary, they have natural rights (just like Locke). How could the state be justified if they take things to individual and limiting their freedom: this is the position of the anarchist, no state can be justified because no limit to liberties is justified.

Nozick introduces the so-called *minimal state* and believes it to be both of a theoretical and practical interest (taking place in history); this is a state that guarantees safety only, any liberty not endangering safety is allowed. "How, if it's immorally impermissible to violate individual rights, would a state still develop over time with 'no morally impermissible steps'?"

Part II: State of Nature In a state of nature Nozick also believes that individuals have rights, not because of God but because they're are human. In defense only is the reason why state arises (like the right of revenge for Locke). There would be then some *security companies*, disputes inside the security agency would then be resolved internally without violence. Any area will then have a monopoly of each one such agency, very alike a *minimal state*. This is called the *Invisible Hand explanation*.

Part III: State Max Weber: "A state is a community that has a monopoly on force in a given area." Nozick states that there those security agencies might differ from a minimal state in two ways: "(i) it appears to allow some people to enforce their own rights or (ii) it appears not to protect all individuals within its domain". In case individuals would try to state some laws of themselves, he states: "An independent might be prohibited from privately exacting justice because his procedure is known to be too risky and dangerous".

Part IV: Patterned Theories of Justice Rawls and other philosopher opting for a wealth-fare state are allowing coercion by the state to its citizens, something he would not allow, he calls it a patterned conception. To show how the patterns cannot be just he makes the *Wilt Chamberlain example*: the basketball player he plays fro 0,25\$ and, even though that is more than any other player, that must be just because any individual is paying voluntarily. The only just distribution is when properties is passed voluntarily, he describes his Entitlement Theory.

The Entitlement Theory by Nozick, as presented above, is structured in the following three precepts:

- 1. Principle of just acquisition: individuals can own what was of nobody else.
- 2. Principle of just transfer: property can be exchanged in some allowed ways.
- 3. Just rectification: a justification is needed to legitimately violating the two precepts above.

There is an important analogy between logical truth and his theory (for this, his argument should have the form of a modus ponens (?), though it looks closer to an inductive argument).

Critiques We did never see any minimal states in history, hence the theory cannot be true. Also, his arguments, like the one by Rawls, are no proper deduction but lay on intuitions only which one may well not share.

Elements of Libetarianism

Most libertarian accept the Lockean **Proviso**: property is always allowed if something is left for the others, though not all libertarians accept the theory by Nozick.

Any libertarian theory requires some **self-ownership thesis**, stated by G. A. Cohen: "each person owns himself in the same way a slave owner owns his slaves". On ownership of nature there are two popular theses:

- 1. **Right-libertarians**: the external nature can be owned by my own work.
- 2. Left-libertarians: the external nature is a common good.

Locke is about in the middle, he believes that nature is given by God and therefore common to all humans but the proviso principle is crucial.

Democracy Theory

Nowadays, two answers are common to why a governmental institution A is better than another B:

- 1. Because A is more just than $B (\rightarrow \text{theories of justice, notably Rawls, e.g. "Justice is the first virtue of social institutions, as truth is of systems of thought")$
- 2. Because A is democratic or more democratic than B

In this section we inquire about what could mean being (more) democratic.

- 1. rendering power sharing possible of every citizen
- 2. democratic processes lead to better results

The latter value can be characterized as epistemic democracy, i.e. the conviction that policies or conclusions that are taken democratically lead to better or in general good decisions.

Scepticals There was however some skepticism in the history of philosophy regarding this view. Plato held that power should be in the hands of who has most competence, e.g. concretely technical government.

Condorcet

Theorem (Condorcet Jury Theorem). Given a group of people that deliberate on some matter/state of affair P answerable with yes/no.

Assuming:

- 1. The decision makers are competent. They are better at taking right decision than a random process, i.e. $p(\top) > 0, 5$
- 2. The individual decisions, i.e. judgements if P is true/false, are statistically independent of one another, i.e. given d_i =decision of decision maker i and d_j =decision of decision maker j, $p(d_i \mid d_j) = p(d_i)$ for any decision makers j and i
- 3. The decisions are aggregated according to the majority rule.

Then bigger the population, greater the probability that a democratic process gives the right answer and it converges to, i.e. given n = number of actors, and d_n the final decision under majority rule aggregated majoritarily $\lim_{n\to\infty} p(d_n) = 1$

Other hidden assumptions are: (i) there is a sort of *truth*, (ii) all those that vote, vote what they truly believe (e.g. strategic vote).

Those are some ways to form counterarguments too, among those, the most famous are:

- Against the *Competence assumption* (principle of charity: if you tell me something, I will believe it until the contrary is proved).
- Against the *Existence of Truth* on a less radical view, political questions often involve values, many are sceptical on objective truth on such moral values.
- Assuming that decisions are independent of others' decisions is too strong, see cases like Cambridge Analytica or simpler ones.

Dietrich and Spiekermann tried to recover the result in spite of the last counterargument.

Definition. A and B are positively correlated iff. $P(A \land B) > P(A) \cdot P(B)$.

Common Cause if A and B are positively correlated, then either one is the cause of the other or there is a common cause C (given some other assumptions not listed here). Hence we must **conditionalise on the common cause** and will get no correlation anymore: $P(A \land B|C) = P(A|C) \cdot P(B|C)$.

Theorem (Dietrich & Spiekermann⁴). Assuming (i) the average competence is above $\frac{1}{2}$, (ii) votes are independent if conditionalised to common causes then the aggregated vote's accuracy increases by increasing of the group size, though converging to less than 1.

Theorem (Gibbard-Satterthwaite). There is no voting system with more than two options s.t. (i)-(iii)

- (i) No Dictatorship: there is not a voter whose preferences correspond to the aggregated preferences
- (ii) Not Strategic: everyone votes their actual preference
- (iii) Sovereignty of the voters: the aggregated preference depends on the votes only.

Borda Count (SEP) is an example of such a manipulable voting system, there each individual expresses preferences and points are distributed proportional to the points. Any kind such voting system can be manipulated by a strategic vote.

Distinction of democratic theories with respect to values:

- 1. Participatory conceptions of democracy: it is good that everyone participates
- 2. Epistemic conceptions of democracy: making decisions together we arrive at the best decisions

But also with respect to the process of finding a decision:

- 1. Aggregative conceptions of democracy: individual preferences make collective ones.
- 2. Deliberative conceptions of democracy: together thinking gives better results.

The two approaches are definitely compatible.

Aggregative Methods Social choice theory, the central idea is that we can have a profile of each voter, with certain preferences which respect some specific rational principles and this should result in some *collective preference*. The Jury theorem supposes something of this sort.

In aggregative the preferences are just given by the individual, by there is no justification or discussion, this is where the majority rule and the Mays Theorem plays a crucial role.

It has an epistemic advantage: it is very easy to know what the social preference is.

In a sense, it is a static method, the preferences are meant to be fixed in a society. Social movements, influences and similars can significantly change the individual preferences which creates technical difficulties in such a social theory. Under this aspect we should consider the other sort of methods:

The vote is private, the preference is static and the choice is met by votes only.

Deliberative Methods In this sort of methods there is a active discussion a confrontation in which individuals consider each individual preferences with the attempt to get to a conclusion; this conception can well handle the social movements.

The aim of a deliberation is mostly to find a consent, everyone should understand and agree the social preference. There is often justification and a debate, each singular preference is considered but the social preference emerges from a debate. Any individual is allowed (and should) participate to the debate. Individual preferences are not seen as a fixed given value that cannot be changed but the discussion and acknowledgement of other's preferences should change the individual preference.

Habermas (and Rawls) are for a normative ideal of deliberation. Individual preferences (which take in consideration the singular persons) should not be counted in the process (think of the Original Position).

The vote is public, the preference is dynamic and the choice is met by a debate and must be a consent to all individuals.

 ^{4}SEP

No Dichotomy Get to a consent is utopic, hence deliberative methods are in large numbers not practically realisable, hence it is often mixed with the aggregative method. A vote is therefore often necessary, and hence the preference private. Though a previous debate is often encouraged.

This theorem shows that an aggregative method that is consistent and fair is particularly hard to find.

Theorem (Arrow Theorem). There is no possible social preference s.t. all these axioms are met.

- 1. Unrestricted domain: there is no limit to the order of the preferences of the individual.
- 2. Social Ordering: the method of aggregation (collecting the votes) should bring to a social order
- 3. Weak Pareto: if for all individuals x > y then the social preference should state x > y.
- 4. Non-Dictatorship: no individual can chose independently from the others.
- 5. Independence of Irrelevant Alternatives: the collective preference must depend on individual preferences only.

May characterized sufficient and necessary conditions for the majority rule.

Definition (Majority Rule). *Given two alternatives, the majority rule counts the votes and determines the outcome just counting which preference has more votes.*

Theorem (May's Theorem). An aggregation rule satisfies universal domain, anonymity, neutrality, and positive responsiveness if and only if it is majority rule.

- 1. Unrestricted Domain: the group decision function sends each set of preferences to a unique winner
- 2. Anonymity & Equality: we only preserve the structure of the votes (equal weighted) but not who personally voted what.
- 3. *Neutrality*: the group decision function treats each voter identically. If we change the vote of any voter, then also the social decision is reversed
- 4. *Positive Responsiveness/Monotony*: if a group of voters agrees to a alternative and a second groups has more votes for the same alternative, the second group will choose the same alternative as the first.

This theorem has also been stated formally⁵.

- (i) Universal Domain: The domain of admissible inputs of the aggregation rule consists of all consistent profiles of votes $(v_1, ..., v_n)$
- (ii) Anonymity: we only preserve the structure of the votes (equal weighted) but not who personally voted what. More formally $f((v_1, ..., v_n)) = f((w_1, ..., w_n))$ iff there is a permutation $\sigma : (v_1, ..., v_n) \to (w_1, ..., w_n)$
- (iii) Neutrality: the group decision function treats each voter identically. $f((-v_1, ..., -v_n)) = -f((v_1, ..., v_n))$, if we change the vote of any voter, then also the social decision is reversed.
- (iv) Positive Responsiveness/Monotony: if $f((v_1, ..., v_n)) = 1$ and $\exists i.w_i > v_i$ and $\forall j \neq i.v_j = w_j$, then $f((w_1, ..., w_n)) = 1$; conversely, if $f((v_1, ..., v_n)) = -1$ and $\exists i.w_i < v_i$ and $\forall j \neq i.v_j = w_j$, then $f((w_1, ..., w_n)) = -1$. Roughly, given a profile $(v_1, ..., v_n)$ such that the aggregation functions sends it to the alternative 1 (or -1), if another profile has more voters in favour of the alternative 1 (or -1), then the aggregation function does not change its value.

 $^{^{5}}$ The Condorcet Paradox can be seen as an example showing the difficulties of meeting all these requirements (the social order in particular).

We first need to characterize what is an aggregation of preferences . Given a set of voters $\{1, ..., n\}$ and two alternatives (candidates, policies, etc...) represented by 1 and -1 each individual casts a vote. How individuals vote is represented by profiles of possible votes $(v_1, ..., v_n)$ where each $v_i \in \{-1, 1\}$, stating that the voter i votes in favour of the first alternative if $v_i = 1$ or against if $v_i = -1$. An aggregation rule is a function f from the set of profiles to the set of possible social decisions, in the case of two alternatives, either 1, i.e. going for alternative 1, or -1, i.e. going for alternative -1. The majority rule for example $f((v_1, ..., v_n)) = 1$ iff $v_1 + ... + v_n > 0$ or $f((v_1, ..., v_n)) = -1$ iff $v_1 + ... + v_n < 0$.

May established an equivalence between this majority rule just stated and an aggregation rule satisying the following conditions:

8 Habermas

This is not officially in the content of the lecture, though it is been quoted many times during lectures, check https://youtu.be/R1K46oK3xTU?si=bZ-AXXcbVBpRUfWv