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COOPERATION AS A BASELINE TOOL OF SOCIAL THEORY:
Cooperative-Conscious Paradigm as a Tool for Social Anthropology and Related
Studies

Magisterská práce
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Prohlašuji, že jsem magisterskou diplomovou práci na téma „Cooperation as a Baseline Tool of Social Theory” vypracoval samostatně a uvedl v ní veškerou literaturu a ostatní zdroje, které jsem použil.

V Olomouci dne

Podpis

Anotace:

Kooperace je navzdory své všudypřítomnosti jen vzácně podrobená akademické analýze jako nástroj základního chápání sociální reality. V tomto článku se pokusím rozšířit naše chápání kooperace coby konstitutivního, nikoliv jen doplňující aspektu lidské sociální povahy. Nabídnu přehled perspektiv na kooperaci coby zásadního aspektu lidské biologické i sociální evoluce skrze díla nejen kulturně, ale i evolučně-psychologické a biologicko-archeologické perspektivy, a pokusím se zpřesnit a znovu-zavést striktnější a užitečnější terminologické a konceptuální nástroje k jejímu pochopení. Nastíním také přehlížený vztah kooperace k samotným základům lidské komunikace, teorie sémiotiky a tvorby významu, a tím se pokusím upevnit její význam v rámci koncepcí sociálního konstruktivismu.

Mým hlavním cílem je nastínit možnost nového paradigmatu sociálních věd, „Kooperativně-informované perspektivy“, základních pilířů a metodologických implikací této perspektivy, a provést předběžnou aplikaci této perspektivy na několik kulturně antropologických a socio-lingvistických témat, zejména problémů příbuzenství a zdvořilosti. Doufám, že tak pomůžu přispět k překonání, či alespoň rozšíření existujících, především konflikt-a-moc orientovaných paradigmat současné sociální vědy.

Klíčová slova: Kooperace, kulturní antropologie, příbuzenství, zdvořilost, teorie konfliktu, moc, sociální paradigma, komunikace, sémiotika, konstruktivismus, evoluční psychologie

Annotation:

While largely tacitly acknowledged, cooperation is rarely analysed as a fundamental tool to understand most basic aspects of human social nature. In this paper, we attempt to expand our understanding of the subject of cooperative behaviour as a constitutive, rather than complimentary dimension of social behaviour. We will examine the history of cooperation from a socio-biological, evolutionary and social-anthropology standpoints, as well as re-evaluate and sharpen terminology necessary for us to fully understand the extent to which it forms our social knowledge. We will also examine the importance of cooperation for some of the most fundamental aspect of our existence, including the core of theories of communication and the process of semiosis and category-construction.

Our goal is to lay out the foundation of what we will call „cooperation-conscious paradigm“, a set of conceptual and methodological tools that could enhance our currently limited understanding of social nature of humanity, and transcend currently existing conflict and power-based points of view.

Key words: Cooperation, Cultural Anthropology, Kinship, Politeness, Conflict Theory, social paradigm, Social Constructivism, Communication, Semiotics, Evolutionary Psychology

Poděkování:

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Introduction:

In the text that will follow, I have set up upon myself a foolishly large and broad goal. To propose a perspective that ultimately should offer a near entire recontextualization of modern sociological knowledge. My initial motivation was a growing sense of dissatisfaction with the existing rhetoric and propensities of large portion of contemporary social studies: The preoccupation with subjects of conflict, of power, of identity as a negatively defined concept. I was hoping to provide a different angle to the nature of human interaction. As I grow weary of my own writing, I realize numerous fatal flaws in my ambition, but nonetheless, I will present you with whatever has been born from my plan.

The core subject of this paper is cooperation. Throughout this paper, I will present it not only as one of many facts of social life, but as a way to understand human social existence in a new light. The point of this exercise is both simple, and unrealistically ambitious: I hoped to argue that human life, both biological and social, is *defined* by cooperation, and that without acute awareness of this fact (which I find to be frequently overlooked or downplayed), our understanding of social phenomena is at best incomplete, and at worst, misleading. My starting assumption is as follows:

The phenomenon of cooperation, as it is displayed (perhaps uniquely) among human behaviour, is the very core of human social life, and an underestimated key to understanding many, if not most manifestations of our social and cultural existence. I will attempt to prove this claim and illustrate the benefits of this outlook.

To properly explain the implications of this claim, I have attempted to provide clearer definitions of the concept of cooperation and its related terminology, propose new analytical tools to study it, and show at least the most basic illustrations of how it could be beneficial to our discipline. My hope was that this could lead us to whole new way to analyse anthropological subjects both new and old. My approach is theoretical, and to a degree multidisciplinary, as I will attempt to weave together evolutionary, anthropological and linguistic perspectives.

The paper itself consists of three distinct chapters.

Chapter 1 (Overview and History) hopes to provide an overview and clarifications of the concepts of cooperation and human pro-sociability, as it was studied and is accessible to us through existing primary and secondary sources. I hope to not only clear out possible misunderstandings about terminology the rest of the paper will rely on, but to also give us some view into how the concepts of cooperation have been studied from an economic, evolutionary, and social points of view.

A significant portion of this chapter will be dedicated to evolutionary and biological perspectives on the subject of human cooperation, as I find the input of natural sciences and congruence with evolutionary and biological consideration a necessity to establish any modern, secular academic model. And as I have discovered while working on this paper, when it comes to the subject of cooperation biologically and evolutionary oriented inquiries seem to be actually by far the most extensive, and most informative ones.

The rest of the chapter is dedicated to other, mainly anthropological and sociological perspectives on the same subject.

Chapter 2 (Cooperation under Microscope) is intended to provide some new or at least partially new insights. It is dedicated to providing an analysis of what cooperation entails, and how it can change our view of social reality. It's divided into sections offering possible ways to categorize cooperation, to recontextualize existing theories of communication and semiotics into a cooperation-conscious fashion, and give us some insight into subjects of trust, competition, conflict, and the issue of evaluation and moral implications that deeper analysis of cooperation allows for. The most important part of this chapter to me is the one dedicated to cooperation and communication, as just like joining evolutionary and anthropological views in chapter one, joining theories of communication provided by the field of General Linguistics and cooperation accounts seems to me as a necessary step to gain fuller insight into the subject matter.

Chapter 3 (Cooperation-Conscious Paradigm) then finally, attempts to summarize conclusions from previous two chapters into a new and hopefully constructive perspective, which I shall tentatively call "Cooperation-Conscious Paradigm". I will outline the basic

theoretical foundations of this perspective, it's overall goals and hope, propose some ways it could inform anthropological and sociological methodology. Finally, the last two chapters provide two illustrating examples of its application: One focused on the subject of kinship, the other on the subject of politeness.

Chapter 1 Overview and History

Chapter 1.1 What do we mean by cooperation?

A great deal of terminological and conceptual confusion seems to exist around the cooperation and pro-social behavior-oriented literature around the key terminology, namely the terms “**altruism**” and “**cooperation**”. For that reason, I will attempt to clarify in what sense these terms will be used throughout this paper. Conflation of these two terms can make a discussion on this subject muddy, as we can see in the case Umbreş & Baumard entry to International Encyclopedia of Anthropology (2018)), which uses the two terms as if they were interchangeable.

Firstly, let’s take a look at **altruism**.

In the most common language usage, altruism is usually understood as selfless behavior, act of helping others without expecting reciprocity, an action motivated by kindness. In a more academic terminology however, altruism was specifically defined **as act of an individual that lowers his evolutionary fitness¹ in favor of increasing another’s**. This definition was particularly strongly emphasized by early sociobiologists, namely Hamilton (1964) and Wilson (1975). We will mostly rely on that latter definition, as it is far more frequently relied upon in literature attempting to explain evolutionary history of cooperative behavior.

What is **cooperation** then?

The conventional definition of cooperation is that it is a behavior in which two individuals act in a way that benefits them both. This definition seems to be sufficient enough to be used even in academic literature, as it is used by authors such as mathematically and politically oriented Robert Axelrod, (2006), or biologically inclined Patrik Lindenfors (2017).

¹ Broad stroke term encompassing relative survival probabilities of an individual (or average contribution to the gene pool of its species) in relation to both his environment and his conspecifics. (Maynard Smith, 1989)

Within the confines of this paper, I will propose a slightly more nuanced definition of cooperation, as try to accommodate comments and extensions of the concept by multiple authors who since explored the subject matter from psychological, developmental and cognitive perspectives (Hauser, McAuliffe, & Blake, 2009; Tomasello, 2009; Tomasello, Melis, Tennie, Wyman, & Herrmann, 2012; Trivers, 1971). The definition I propose is as follows.

*Cooperation is an alternation of behavior of at least two participants (which may or may not include sacrifice of their own resources and/or fitness) performed in **functional consideration** of each other, which results in a **non-zero-sum conclusion** – and as such increased fitness of both relative to the non-cooperative scenario: Cooperation thus results in creation of greater material or intellectual wealth, stability or other forms of evolutionary advantages.*

There are few particularities to this definition that separate it from the broader understanding of this subject. Namely the concept “Functional consideration” which here refers to the fact that cooperative behavior may not always be conscious, and the role of the “other” within it may not be fully conceptualized by the cooperating agents. Instead, the functional consideration may be mediated by external means, usually institution such as convention, tradition, morality, law etc.... **Lack of consciousness or voluntariness of cooperative behavior does not preclude cooperative behavior.** Cooperation requires two or more agents, whose behavior is altered and moderated in such a way that there is non-zero-sum result, but the moderation means may not be conscious on the side of the agents.

Next, it is important to realize, that a non-zero-sum outcome may not always be in the form of clear or material gain. There are many forms of cooperation, and we will explore them later, but for now, let’s look at what is arguably the most basic form of cooperative behavior, symmetrical direct reciprocity. Or “I’ll give this but I expect something of equal value in return (preferably now or in foreseeable future).”

In our illustration of symmetrical direct reciprocity, first participant will invest a certain number of resources (such as food) into another individual. The other individual will then (soon-ish) invest equal amount of food or resources of equal value back into the first one.

Now, at first glance, this may seem like a zero-sum scenario. Both participants lose, and gain equal value of resources, and no surplus value or increase of fitness is seemingly created. However, on closer inspection, things turn out to be more complex.

For starters, in many *specific cases* of this scenario, such exchange may lead to significant increase in stability of wellbeing of both participants.

This may happen if say – the first participant, himself in an affluent position, shares portion of his food supply with a second participant, who is currently on the verge of starvation. Later on, when their roles happen to be reversed, the formerly starving, now affluent participant repays the favor and saves the first one from his own existential threat. The volume of food is equal in both cases. No direct new resources are produced in this exchange. But the stability of both participants has been increased, as this simple, symmetric exchange likely prevented loss of at least one, and potentially both lives from starvation.

Another potential benefit rising from cooperation is the diminished loss of resources due to future conflicts, hostilities and competition.

Let us again consider a food sharing scenario, in this case, two hunters dividing their prey. A non-cooperative individual may opt for trying to grab the majority of the meat for himself. While this will give him a temporary advantage, it will increase the evolutionary pressure on the other one, forcing him to be more competitive, potentially driving him into open conflict with the cheater. Such conflicts can quickly escalate and become very costly. A more cooperative hunter will satisfy himself with only a fair share of the meat – maybe decreasing his immediate chances, but also decreasing the odds of discord that would cost him more than the increased share of food he would otherwise gain. Conflict mitigation and social harmony are invaluable resources, especially if we chose to accept parts, or entirety of cooperation-explaining theories involving the reality of obligatory foraging (Foley & Gamble, 2009; Tomasello et al., 2012). Thus, the cooperative behavior in mere equal food distribution turns out to be once again a non-zero-sum yielding behavior.

Secondly, and by my account far more importantly, both of these cases (and in fact, every *successful* form of cooperation) generates **trust** of both participants in the reliability and value of further cooperative behavior. This opens the door for further, potentially more

complex and nuanced forms of less symmetrical, and less direct cooperative strategies. (Isoni & Sugden, 2019; Rabin, 1993) **Trust** here becomes a resource of its own, a new product generated from “nothing” by the cooperative action. Trust increases propensity to cooperation, opens doors for more advanced forms of cooperation and willingness to engage more asymmetrical forms of cooperation (Axelrod, 2006; Carballo, Roscoe, & Feinman, 2014; Hauser et al., 2009; Tomasello et al., 2012). As trust increases the odds of the trusting person as long as others are willing to cooperate too, it creates an incentive to further reward cooperation and encourage altruistic punishment (R. Boyd, Gintis, Bowles, & Richerson, 2003; Fowler, 2005; Richerson & Boyd, 1992). Trust can be gain and spend, transformed into reputation, and otherwise leveraged in reproduction and expansion of complex, pro-social behaviors. Trust is the most fundamental currency of any social system.

I will touch on this later, but for now let me state that the role of trust is not always fully realized in much of existing literature exploring the evolutionary history of cooperative behavior. Many authors whose works I’ll later examine in detail consistently deal with the issue of non-cooperative “free-riders” and “scammers” being a threat to erode cooperative behavior (R. Boyd et al., 2003; Fowler, 2005; Olson, 1971; Richerson & Boyd, 1992). What they rarely seem to take into account that trust is a potentially self-replicating resource. Trust leads to more attempts at cooperation – more cooperation leads to more trust. As such, trust becomes a potentially renewable resource that may be far more difficult to eradicate than most authors think. We will discuss the subject of trust and related literature further bellow.

This small set of examples illustrates what I mean when I say that cooperative behavior is, *by definition*, a **non-zero-sum game**, a form of behavioral strategy that – as long as the cooperation is completed – will always generate some form of resource surplus or evolutionary advantage. In later chapters, we will explore other, more complex, less symmetrical forms of cooperation and cooperation-structures that generate far more obvious and tangible surplus of resources.

Altruism then may become the inciting incident of cooperative behavior – as an altruist may invest his resources into another agent without expectations of any return – but

his action may inspire reciprocal or replicatory² action, resulting in the basic form of cooperation being started. But it is important to always keep in mind that altruism and cooperation, while strongly evolutionary linked, are fundamentally very different types of interactions, as altruism does not require functional consideration of the “other’s” behavior. Meanwhile cooperation requires either direct, or mediated awareness of our cooperative partners situation and intentions.

This necessity of consideration of the “other” in cooperation is fundamental in understanding cooperation and with it, human history, as we’ll discuss in the chapter addressing cooperation and communication.

Chapter 1.2 When do we cooperate?

Cooperation is often perceived as a matter of isolated, clear and often highly impactful situation. This notion is often fueled by the fact that we tend to often see cooperation as some form of opposition to the notion of competition, or conflict. When we think cooperation, we often think of grand events and major actions: Communal distribution of vital goods such as food-sharing, coordination during hunts, major aspects of labor division. These are often seen as stark contrast to any events of competitive behavior, identity divisions, tribalism, confrontation or conflict. Yet these ideas of cooperation are woefully incomplete, blissfully ignorant to the larger scale of human sociability. This can be explained by three major cognitive relicts: The misunderstood notion of evolutionary selection, the cognitive attention-bias towards dysfunctional rather than harmonic elements of our society, and the outdated, arrogant ideologies of late 19th century, including naïve social evolutionism and it’s offspring: pseudo-scientific race/identity conflict theories that equally fueled both movement such as national socialism, and the philosophy of social history of Marxist movement (and it’s contemporary continuations). These relicts further reinforce misconceptions about role and scale of cooperation vs. conflict and competition in our world.

In reality: The short and underappreciate answer to the question to “when we cooperate” is: Almost constantly. There is nearly no aspect of our daily lives that is not rooted

² Essentially, an action in the form of “pay it forward”, inspiring the individual who has benefitted, to engage in similar altruistic action towards yet another member – and potentially creating a whole chain known as “indirect” or “network” reciprocity.

in multiple often interlocking levels of cooperation. In fact, cooperation is such a fundamental aspect of our daily existence that most of it happens without us realizing that is what we are doing.

We cooperate when we talk. On multiple levels. We cooperate by the virtue of sharing information (from pragmatic informing to gossip and offering amusing anecdotes) with others. We cooperate by choosing to use shared language and adhering to its rules and conventions. We further cooperate by adjusting (often unconsciously) our own vocabulary and manner of speech to what we perceive is better suited to the subject and partners in communication (choosing more technical terminology when talking to peers but simpler vocabulary when talking to people outside of the shared technical domain). We cooperate by engaging in basic acts of politeness and courtesy. We cooperate when we offer to fetch a fresh glass of beverage during the conversation.

We cooperate every time we buy or sell something. Again – on multiple levels. We cooperate with our partners in transaction (which usually actually involves long and complex chains of productions and roles), by respecting the rules and laws regarding the legitimate use of currency, as well as laws regulating the conditions under which transactions can be made. We cooperate by respecting the customary order in which selection and purchasing of goods usually happen. We cooperate when we let someone else in front of the line at the cashier.

We cooperate when we click “I accept cookies” in a web browser. We cooperate when we mark our ticket at the mass transit system, and surprisingly, we also usually cooperate when we are caught for failing to do that.

We cooperate when we divide labor and roles at our workplace, but also at our own home. We cooperate with law by abiding traffic rules, we cooperate with National Bank when we don't wantonly destroy our monetary bills. We cooperate when we stop at a red light. We cooperate when we teach, and when we study for tests. We cooperate whenever we offer words of encouragement or warning. We cooperate when we stick to the pavements while being pedestrian. We cooperate by wearing our ID on ourselves at most time. We cooperate

when we subject ourselves to customs and passport check at airports, and we cooperate at every step we take while waiting, boarding, and sitting on a plane.

We cooperate when we play social games and boardgames. We cooperate when we enlist – to schools, to military, to a cooking course. We also, of course, cooperate when we provide any of those services and options.

We cooperate when we respect the silence of a sacred location. We cooperate by compliance: with law, with medical service systems and paying our taxes or insurance, we cooperate when we vote and when we strike. We cooperate just by acknowledging another person, as a person.

There is absolutely no way to even begin providing an exhaustive list of the levels of cooperation we engage in daily life without even realizing most of it is, at its core, *cooperation*. Cooperation is by no means a specific, isolated aspect of our life, but it is the fundamental fabric of our entire *sociality*. There is no escaping it. It's the tool which makes all other tools of our evolutionary strategies work.

We just may not be paying attention to that fact.

It is important once again to stress out that consciousness and voluntariness are not necessary conditions for cooperation. When we comply with bureaucratic demands that may seem absurd to us, but unavoidable due to laws constraining our life, we cooperate with those laws, and (aware of that or not, happy about it or not), we invest portion of our time, our energy, our resources into a joint venture that is the legal system, the statehood, or whatever institutional structure that we *trust* to be beneficial or necessary. We might not be aware of the legal benefits that 2018's GDPR law that mandated explicit confirmation of our compliance with individual websites cookie policy. We may not be aware of the existence of this particular set of laws to begin with. But we do partake – on the agreement, on the entire system of European Union legal institutions (which themselves span thousands of people working together, fully employed on nothing but facilitating cooperation between states within the Union and their legal systems). We participate on the Union itself, complying with its laws and customs, trusting that – if nothing else – it is still preferable to lawlessness.

It is very easy to lose track of the full complexity of cooperative systems that influence just about every aspect of our life. This fact is made harder by a sad but natural evolutionary fact we mentioned above: We naturally pay more attention to disfunctions than to systems that work. This asymmetry of attention is logical: dysfunctional aspects of our lives require immediate attention, while functioning ones can be often left largely disregarded for as long as we can rely on them. Each instance of abuse of cooperative systems – such as a fraud, a theft, betrayal of trust (and I will address exploitation within cooperation in later chapter) will draw attention – while the uncountable number of instances where the cooperation has worked in our favor, will be taken for granted.

To put this into an example: If someone scams few hundred people by advertising a product online, cashing in the money and then not delivering, he will likely make news headlines. The tens of thousands of online transactions (from food deliveries to entire mortgage being taken) that happen every day in Czech Republic alone, will rarely be reported on.

Yet every single time we order a take-out, or use our phone to pay for a tram ticket, this action involves incredibly complex systems of cooperation. This cooperation includes our trust in vendor, but also in the manufacturer of the electronics we use and the distributor that provided it, in the software that comes with it and the people who write and maintain it, in the internet provider, in banks that facilitate it, in their tech, their software and hardware and those who provide it, in legal system that oversees it, in the concept of currency itself, in state that legitimizes it, often in global institutions that legitimization employs. Every single person who is involved in this process – from lawyers drafting the legal frameworks, past bank clerks routinely checking transactions for irregularities, past the laborer overseeing electronic production lines, to the courier that delivers our meal, or tram driver who turns up to work on that day, are all involved, with their own investments, their expected returns, and trust in the purpose (that is, the non-zero-sum result) of the whole exercise.

So, how did this strange, near infinitely complex nature of human cooperative behavior come into being? We'll try to explore that in our next chapter.

Chapter 1.3 Theories of evolution of cooperation

Preamble

Exploring biological, evolutionary and experimental-psychology based accounts of human cooperative propensities seems like a particularly important task to me. There are two reasons for this. The first one, the issue of expanding our knowledge-base through any useful means available, may seem self-evident. The other less so.

It is my belief that evolutionary studies of cooperative behavior could be of great help in bridging the gap, or perhaps more precisely, the wedge, that has been driven between biologically and socio-culturally focused studies of human nature. For now it suffices to say that largely thanks to a number of authors actively undermining the possibilities of cooperation between sociobiological and cultural perspectives on humanity (Lewis et al., 2011; Lewontin, Rose, & Kamin, 1990; Needham, 1971; M. D. Sahlins, 2003, 2013; D. Schneider, 2004), a strong disconnect has formed between fields such as social anthropology, cultural studies and sociology, and between more empirically oriented, evolutionary-focused fields of evolutionary psychology, sociobiology, or experimental psychology. It has become a widely accepted belief across a considerable portion of social studies that study of human as an evolutionary shaped, biological creature, and between human as a social and cultural actor, cannot intermingle. And while there are some attempts to mend or bridge these gaps (for an instance, Martin Palecek, (2017), D. W. Read, (2002) or Segal & Yanagisako, (2005)), they remain comparatively niche, if not controversial.

Studies of evolution of cooperation, which in concurrence with Robert Boyd & Richerson (2009), Levine, Stanish, Williams, Chávez, & Golitko (2013) and Tomasello et al. (2012) may be the foundation study of culture itself, as well as insight into closely related evolution of communication and semiosis, which Eco (1976) defines the birthplace of culture, may allow us to start mending this profound rift, in part caused by deliberate misrepresentations of sociobiological theories as “inherently anti-social and encouraging or defending social discord” (Lewis et al., 2011; Lewontin et al., 1990; M. Sahlins, 2003). Study of cooperation, from an evolutionary and cultural standpoint, could create the intersection between the two warring camps and open doors to a tighter cooperation.

For that reason, I wish to explore at least some bits of existing biologically oriented and informed studies into the subject of cooperation, as well as some degree of social context that surrounded it.

The “Evolutionary Puzzle” of Cooperation

Although Darwin himself has considered cooperation as one of the most clearly defining, evolutionary conditioned traits of human nature:

“I fully subscribe to the judgement of those writers who maintain that of all the differences between man and the lesser animals, the moral sense or conscience is by far the most important.”

(Darwin, 1871, Chapter V, p 92)

the second half of 19th and first decades of 20th century did not further the inquiries into the social nature of humans too much. Instead, the emphasis was placed largely on discovering the more fundamental and general nature of the evolutionary mechanics themselves (Clutton-Brock, West, Ratnieks, & Foley, 2009). The dismissal of the concept of group selection (mostly caused by publication of *Adaptation and Natural Selection* (Williams, 1996, originally published in 1966), and the growing influence of the idea of genocentric evolution (eventually culminating in famous *Selfish Gene* (Dawkins, 1976)) has driven much of evolutionary biology interest in the direction of focus on individual (later even on individual genes of an individual) role in evolutionary process, in relative isolation from its peers. Cooperation, which to a degree requires willingness to be altruistic, was considered problematic. The idea of **altruistic action** as defined earlier seemed to naturally lead to individual’s loss of fitness and thus be, evolutionary speaking, eventually eliminated.

The first major breakthrough in study of the possible source of altruism, and eventually, cooperation, was presented by Hamilton (1964), later that year dubbed by Smith (1964) as “Kin Selection” (to be distinguished from the already largely abandoned notion of Group Selection (Clutton-Brock et al., 2009).

Hamilton proposed a model in which altruistic behavior could be evolutionary favorable under the condition that it benefits sufficiently those who share large portion of

genetic makeup with the altruistic individual (e.g., his kin). This theory has become famously represented by a following quote, usually ascribed to J. B. S. Haldane:

"I would gladly give up my life for two brothers or eight cousins."

The kin selection hypothesis, however, had certain problems, mostly notably the fact that in the particular case of human cooperation, altruistic actions do not seem to be limited to kin members only. In fact, as much later research performed by Hill et al. (2011) strongly suggesting that even in the earliest days of human development, the obligate forager/scavenger bands that already displayed evidence for complex cooperation, the band composition was by no means kin-exclusive.

The next major steps towards a more refined theory of cooperation came in 1971 when an evolutionary psychologist Robert Trivers proposed his fantastic and deeply influential *Evolution of Reciprocal Altruism* (Trivers, 1971), a theory that explained that if a sufficient number of individuals within a group start acting altruistically (even towards non-kin members), eventually a system of reciprocity will develop alongside it, which will grant sufficient fitness increase of all involved to make such strategy viable. This is, essentially, the birth of our theory of cooperation.

There were still issues with this theory though. Firstly, the reciprocal altruism required a number of individual members of the group to develop non-kin focused altruism independently, and it was unclear how such condition could arise. Secondly, the model Trivers presented was still vulnerable to exploitation, especially through so called "free-riding", in which members of a group that develops such reciprocal tendencies start to withdraw their own investments, while still reaping the benefits provided by others, gaining an advantage and eventually out-competing their more altruistic peers. This potential corruption by opportunism still presented a major challenge to explain.

After release of *Evolution or Reciprocal Altruism*, things started to develop quite rapidly. In 1974 both Smith (1974) and Parker (1974) introduced the quickly evolving field of Theory of Games to evolutionary science. With such a powerful modeling tool at their disposal, numerous authors started presenting their own possible models of how non-kin focused altruism and consequently, cooperation, could plausibly survive evolutionary pressure. Year

later, in 1975 the world saw a release of influential *Sociobiology: New Synthesis* (Wilson, 1975), one of the first major attempts to bridge evolutionary and cultural domains of knowledge. Meanwhile, the field of Theory of Games saw its own rapid development, arguably culminating in Axelrod's *Evolution of Cooperation* (Axelrod, 2006, originally 1984), offering more and more possible explanations for evolutionary conditioning of humans towards pro-cooperative and pro-social behavior.

Unfortunately, this was also the time of rapid push against sociobiological endeavor. Schneider published his rejection of kinship as a concept in 1968 (D. Schneider, 2004), Gould and Lewontin released their famous "*Against Sociobiology*" open letter in 1975, beginning an era of open, often explicitly aggressive and hostile campaign against biologization of human social behavior (namely through actions of the ideologically motivated Sociobiology Study Group, peaking with the INCAR assault on Wilson himself (Segerstråle, 2001)). Marshal Sahlins released his *Use and Abuse of Biology* in 1976, (M. Sahlins, 2003) ironically despite borrowing his entire earlier theory and terminology for *Stone Age Economics* directly from sociobiologist Trivers.

As such, the deliberate wedge between evolutionary and socio-culturally focused lines of inquiries about human nature has been hammered in place, and its impact is felt still today. The mostly left-leaning socio-cultural fields largely abandoned interest in cooperation in favor of Marxist dialectics and conflict-focused theories (Randolph, Schneider, & Diaz, 2019) or radical Sapir-Whorf inspired cultural constructivism (Berger & Luckmann, 1990; Foucault, 2005).

On the other side of the barricade, research into cooperation did continue. While authors such as Trivers and Axelrod could provide a solid account of how an altruism-heavy social system might be genuinely advantageous from an evolutionary standpoint, they did not provide much in terms of explanation of how would such a system emerge during our long path from tree dwelling fruitivores to car-riding and cellphone using academicians. Many new accounts have been formulated since then, with arguably the biggest and most comprehensive recent review being provided by Martin Nowak in his 2006 book *Evolutionary Dynamics* (Nowak, 2006).

Pieces that need to fit together

Putting together accounts provided by Boyd & Richerson, (2005), Nowak, (2006) and Tomasello et al., (2012), we shall present several existing theories that offer explanation of the specific conditions forming human propensity to cooperate (with some commentaries), as each of them may offer some interesting insights into how and why our society formed as it had. These theories are not mutually exclusive, and in some ways may overlap. The actual nature of evolution of cooperative is almost certainly multi-causal and it is likely, that the truth may lay in combination of several, if not all of these theories.

- 1) The Heart on a Sleeve Hypothesis, which proposes that human cooperation evolved in relation to development of human emotional expressive range and capacity to truthfully signal our intentions.
- 2) The “Big Mistake” Hypothesis, which proposes the evolution of cooperation being a “lucky malfunction” of kin-recognition and kin-altruism propensities, that carried on into larger social units.
- 3) The “Stag Hunt” Hypothesis, which proposes the development of cooperative behavior was a necessary consequence of early hominid shift in subsistence strategies from predominantly fruitivores to obligatory foragers
- 4) The Cooperative Breeding and Grandmother Hypothesis proposes a key role of shift in forms of child-rearing strategies, likely in relation to prolongation of the period of child-mother dependency and child development cycles.
- 5) The Cultural Group Selection Hypothesis, which proposes a strong version of a gene-culture co-evolution, and proposes formation of cultural (or “protocultural”) units acting as individual agents under evolutionary pressure.

The Heart on a Sleeve hypothesis was proposed in book titled *Passion within Reason* by economist Robert Frank (1988). In it, Frank speculates about the uniqueness of human expressive range, proposing that it may have allowed other humans within early bands to become much better at reading and anticipating other’s intentions states, and as such, make more reliable predictions about potential success of a joined venture. This theory has in recent times received only limited attention, as many authors, such as Robert Boyd, pointed out that human emotional expression scale is not actually that unique within natural realm, and some species (such as many apes) can actually display their mental states even more distinctly.

Personally, I think this theory deserves some rehabilitation though, as I actually believe the role of communication of intentions and states did indeed play an absolutely key

role in human cooperation development. I do however believe that it was not the physiological range of emotion expression that facilitated this shift, but rather the development of *arbitrariness and sign*, and I will further argue this point in a chapter 2.2 and onwards, dedicated to cooperation and communication.

The “Big Mistake” Hypothesis was first presented by famous evolutionary psychology duo Tooby & Cosmides (1989), and it directly builds upon older theories of kin selection and inclusive fitness, proposed earlier by authors such as Hamilton (1964), Smith (1964), and Wilson (1975). The genetic propensity towards kin-oriented altruism, logically developing in small, kin-bound groups, may have according to Tooby and Cosmides “malfunction”³, likely on the level of kin detection and tracking heuristics, and result in individuals becoming less discriminate in selecting partners for altruistic behavior. This extended the pool of those involved in altruistic interaction to non-kin members, “by accident”, but due to a complex constellation of circumstances⁴, proved viable, in fact, advantageous in the long run. As such, with a bit of levity, we can describe this theory as “the entire human culture is a result of a few individual early humans failing to recognize their own family members from strangers.”

This theory, while concise, does not strike much confidence in me, for several reasons. One of them is that as some contemporary research (Foley & Gamble, 2009; Hill et al., 2011) suggest, both early human, and many of our closest evolutionary relatives like chimpanzees, do not actually form bands formed exclusively of kin. Another reason why I have my concerns about this hypothesis is its somewhat reductive nature, as it ignores some of the more modern cooperative behavior viability theories.

The “Stag Hunt” Hypothesis was proposed by Tomasello et al. in *Two Key Steps in Evolution of Cooperation* (2012), and as mentioned, it’s based on assumptions about change of early human ancestors subsistence strategies. As early human ancestors had to largely adapt from tree dwelling and presumably largely fruitivore subsistence to bipedal, obligatory forager lifestyle during late Miocene and early Pleistocene (Foley & Gamble, 2009), new forms

³ By which Tooby and Cosmides mean a mutation of responsible genes or gene expression in a small population.

⁴ Tooby and Cosmides place the timeline of this “lucky mistake” coinciding with the Toba catastrophe event, claiming the population bottlenecking it entailed may have allowed it to spread and “resist” the competition of more reliable kin-altruism genetical propensities.

of food obtaining had to be developed. These according to Tomasello involved scavenging and large game hunt. Both of these strategies require larger, more coordinated groups to achieve.

Now, group hunting is by no means unique to humans, even among the primates. Chimpanzee hunts became a famous subject of many discussions in particular due to their complex and seemingly very coordinated nature (Tomasello, 2009). However, unlike with our bipedal ancestors, chimpanzee hunts are not an obligatory activity, as they are not the primary source of subsistence – merely a way to round up the diet. In Tomasello’s view of human evolution, alternatives to scavenging or hunt were limited, thus the importance of coordinated, cooperative behavior became significantly higher, putting our us on our cooperative evolutionary path.

The “Stag Hunt” hypothesis is certainly a strong one. The shift from forest-based to grass-land based, bipedal lifestyle, as well as the growth of importance of meat in our diet are well documented, and correspond to other evidence of increased cooperative behavior, namely collective tool creation and tool-making strategy persistence (Foley & Gamble, 2009), However, there are some issues with this hypothesis. In particular, investigation into more recent obligatory forager societies do not actually indicate hunt and meat procurement as essential portion of subsistence (Bogin, 2011; Kelly & Kelly, 2013; Lee & DeVore, 1968; Steward, 1955).

The Cooperative Breeding Hypothesis was famously presented by Sarah Hrdy’s *Mothers and Others* (Hrdy, 2011). Drawing inspiration from a phenomenon well explored from other species, Hrdy points out the necessity of cooperative breeding – a process in which females of a band take care of other, not necessary kin-related youth in the time of their mother’s absence – being part of our early evolutionary development. Cooperative breeding, according to Hrdy, may have led to major strengthening of emotional and psychological connections among members of the band, as their relationship towards their mothers and siblings were “generalized” and broadened by the presence of fosters during the nursing and early rearing stages. This “dilution” of strict kin divisions may have contributed to the development of non-kin focused altruism, essentially complimenting the “Big Mistake” hypothesis. This thesis is often further supplemented by the “Grandmother” hypothesis,

which points out the potential role of extended and possibly generalized child rearing support provided by female band members past their reproductive age.

There are some problems with this hypothesis when taken on its own though. First – much like in many of the previous theories, cooperative breeding is by no means exclusive to humans. In fact, it is practiced even by our close kin – chimpanzees, bonobos, certain species of lemurs and macaques (Tardif, 1994). The practice alone thus does not explain the uniquely human pro-social tendencies. Second, while Hrdy's evidence in existence of cooperative breeding is undeniable, the actual full extent of it is not, and from that, it is hard to judge its actual impact. To fully facilitate Hrdy's account, cooperative breeding would have to take place on a very large scale, with individual youth spending nearly as much time in foster care as with their own mothers and siblings, which does not seem to be supported by any available evidence. Hrdy also does not seem to account for parental influence from the father's side at all. There is an interesting (and potentially risky) analogy to Hrdy's theory, and the old theory of "original polygamy" theory of Morgan, Bachofen (and later adoption by Engels), which also heavily advocated the idea of original social systems of traditional societies relied almost entirely on communal child-rearing hypothesis.

Finally, the Cultural Group Selection Hypothesis, most actively propagated by R. Boyd (et al., 2003; Robert Boyd & Richerson, 2005, 2009). This hypothesis revives the old group selection perspective, but this time, extending the theory by stressing out the evolutionary importance of shared, cultural (or proto-cultural) properties: which are, as we are trying to establish, forms of cooperation. Boyd argues that the shared nature of persistent cooperative strategies does actually result in fitness advantage of the whole group, resulting in a simple scenario where groups that engaged in persistent cooperation outcompeted groups with less cooperative "culture". It is worth mentioning at this point, that unlike all other previously mentioned major authors, Boyd's formal education is anthropological, rather than strictly biological.

The cultural group selection theory seems to be essentially bridging most of the theories mentioned above. However, once again we do run into some problems with it. Namely – the presumed relative instability of human ancestral bands, and the issue of what and how do we delimitate, and explain formation of individual "cultural groups".

Conclusions

As mentioned at the beginning of this chapter, none of these theories are mutually exclusive. Each offers a potentially fascinating window into both past, and present of our cooperative nature, but none can actually explain its history singlehandedly. What they do provide us with, is clues and suggestions at possible mixtures of presented possibilities, but also illustrate just how *wide and far-reaching* our cooperative history is. There is no aspect of our biological nature – from childrearing past subsistence to communication – that is not in some way involved – either being shaped by, or shaping, cooperative strategies.

They also give us another important insight, which is to how intensely and complexly is human cooperation being studied within the fields that study human history or nature from a biological perspective. It seems that the realization of importance of cooperation has been more strongly reflected in sociobiological disciplines, than in culturally and socially focused ones. This should be, in a way, a wake-up call for disciplines like social anthropology, sociology, cultural and media studies, that we might be lagging behind. But that is going to be a subject of another chapter towards the end of the paper.

Chapter 1.4 What are existing social accounts of cooperation?

Classic Anthropological accounts:

Surprisingly enough, there is not much anthropological literature directly focusing on synchronic study of cooperation as an anthropological ***direct constant of interest***. The explanation for this may not be in the lack of interest or awareness of the subject, but rather in the fact that it is accepted as a relatively unproblematic, common-sense aspect of our social being. Authors such as Carballo et al., (2014); Fuentes, (2004) attribute this tendency to the old history of social philosophy dispute between Hobbes and Rousseau, with modern anthropology seeming to be more distinctly aligned with the Rousseau's "noble savage" (that is, human intrinsic propensity towards non-conflict based problem solution) ideal.⁵

Sallnow (1989) and to a degree also Widlok (2004) point out the influence of Durkheim's theory of pro-sociality as a product of division of labor (Durkheim, 1933), that

⁵ A good and comprehensive analysis of how Rousseau's philosophy of human nature should be interpreted and reincorporated into anthropological knowledge is presented in Claude Lévi-Strauss's work, namely his *Triste Tropiques*.

may have driven many anthropologists of the previous century to not pay particular heed to the concept of cooperation itself, and rather focus on what they saw as more pertinent functional themes. Durkheim's theory is relatively simple, as it assumes pro-social behavior a logical and necessary conclusion of an individual's need-fulfilling agency. This is the approach that later inspired functionalist anthropological accounts and their resonance throughout the discipline.

As such, it is probably correct to state that while most of classic anthropological library does account for cooperation, it has a general propensity to study its individual, isolated and particularly distinct manifestation (specifics of Kula exchange, uniqueness of certain kinship models, the culture of Gift etc.), rather than to pay heed to the cooperative matrix existing beneath it.

Malinowski's Argonauts complex circulation of Kula goods (Malinowski, 1983), Roy Rappaport's ecological equilibrium (Rappaport, 2000) or Benedict's cultural typologies (Benedict, 2018) including her conceptualization of *guilt* and *shame* cultures (Benedict, 2005) all unquestionably stand on implicit acceptance of the fundamental role and scale that human cooperation plays on. Yet very rarely, these authors bring up the cooperation in and off itself to the forefront of their studies, placing generally far greater emphasis on subjects of conflict, status or competition. It seems that cooperation was to these authors, as we mentioned above in case of most laic public, just "the air we breathe".

One major exception to this rule seems to come from Margaret Mead and her interesting, comparative compilation "*Cooperation and Competition Among Primitive People*" (Mead, 2003). While still heavily pre-occupied with essentialist fascination with Enlightenment-style classificatory models, it features some notes with rather pertinent observations:

"Nevertheless, no society is exclusively competitive or exclusively cooperative. The very existence of highly competitive groups implies cooperation with the groups. Both competitive and cooperative habits must coexist within society. (...) Similarly, among the Manus, the competitive exchanges between the wealthy entrepreneurs are dependent upon a degree of cooperation within the constellation of related person who support the leader. (...) Nor did competition (...) necessarily mean conflict, and cooperation solidarity. The Maori strove to outdo one another in bird snaring and are publicly honoured for their success, the cooperative distribution of the catch was not affected – the rivalry only served to create or reward productivity. (...) There is

no correlation between (cooperative/competitive/individualistic) emphases and classification of cultures into food-gathering, hunting, agricultural or pastoral people. (...) Both the Kwakiutl and Maori build large houses which require a considerable amount of cooperative group action. This is also true of their construction of and manning of canoes. Despite this, the Kwakiutl are highly competitive, while the Maori are highly cooperative."

(Mead, 2003, Interpretative statement, p. 461-463)

It seems that Margaret Mead thus acknowledges cooperation as universal – if often intermixed with competitive – trait of primitive societies, not intrinsically linked to either subsistence strategies, technologies or wealth distribution. These acknowledgements are important, and her notes that cooperation and competition are not forms of binary opposition, (in fact competition may be a product of cooperation) and neither is cooperation synonymous with solidarity, are truly ahead of her time.

To us however, the most explicit and directly inspiring insight on the subject of cooperation was presented by Claude Lévi-Strauss through his famous (or to some, infamous) Incest Taboo explanation (Lévi-Strauss & Needham, 1969). And while we can keep many reservations about the literal veracity of this theory, I believe it contains some incredibly valuable implication, which have been rehabilitated with time. I wish to revisit this theory in a later chapter, dedicated specifically to cooperation and kinship.

Some Contemporary Anthropological Accounts

Contemporary anthropological literature seems scarcely any more interested in the subject than the works of the classics. Comprehensive papers focusing on cooperation specifically are relatively rare to come across, with the exception of extensive, but mostly evolutionary focused library by Boyd and his colleagues. There are few exceptions though, that are worth bringing up.

Agustin Fuentes's paper with a suggestive title *It's Not All Sex And Violence* (Fuentes, 2004) is particularly worth reading, for two separate reasons. One of them being the simple fact of actual acknowledgement of the *need for more direct focus on cooperation and pro-sociality* in social disciplines. This acknowledgement is based on solid arguments, many of which mirror my own conclusions and research that I present here. The other is a purely meta-discursive one, and something that interestingly enough will appear in other papers on similar

subject: The odd but deeply ingrained *intuition* or *presupposition* of evolutionary and naturalistically oriented perspectives being *inherently conflict focused*.

Let's review some interesting quotes:

*"Given this, theories reliant on **individual-based "selfish gene" perspectives** (Dawkins 1976) are insufficient to effectively model human evolution."*

"We need to look beyond individual strategies arising from classic neo-Darwinian theory to get a better handle on the multifarious facets of human evolution."

"The traditional neo-Darwinian perspective explains cooperation as having arisen as an adaptive mechanism to deal with competition (be it from other members within the same group or with other groups entirely)."

(Fuentes, 2004, p. 711, 712 emphasis mine)

Now, considering the discussion about the evolution of kinship proposed above, and pointing out that vast majority of the involved people (including Trivers, Axelrod, Smiths, Parkers, Tooby and Cosmides, Tomasello and Nowak) all broadly subscribe to neo-Darwinistic mindset, this kind of grand misunderstanding of the actual development of cooperation theories in the second half of 20th century is rather fascinating. We find this in other papers tackling this subject, such as in Molina, Lubbers, Valenzuela-García, & Gómez-Mestres, (2017):

*"Whatever the particular perspective, all these approaches share in common a concern with the emergence of cooperative **as opposed to 'natural' (i.e. competitive)** behaviours."*

(p. 11, emphasis mine)

From a meta-discursive standpoint, this casual association of "natural" (evolutionary, Darwinist) perspective as being inherently competitive and conflict-based is rather fascinating. While as I demonstrated above, there was a certain period in the first half of 20th century, in which pro-social behavior was a controversial subject, we have moved past that problem a half a century ago. This outdated view of biological and evolutionary account of humanity

becomes almost eerie once put into perspective of the reality of majority of contemporary social and cultural only focused theories of the last 50+ years, as it seems the more culturalist account that seems to be far, *far* more preoccupied with conflict, competition, and most of all, power. In fact, looking back at words of Gould, Lewontin or Schneider, it seems the idea of associating evolutionary perspective with conflict and selfishness, is their specific declaration, that is not shared by the most of the actually evolutionary oriented authors they attribute it to.

Going back to Fuentes, aside from his somewhat skewed view of Neo-Darwinist theories, his proposal of a Developmental Systems Theory is certainly worth noting. Drawing mainly on Susan Oyama et. al. *Cycles of Contingency* (Oyama, Griffiths, & Gray, 2001), he proposes a new level of expanding the theory of gene-culture co-evolution, similar to how it was proposed by the group of scholars largely surrounding Richard Boyd. (Gintis, 2011; Hammerstein, 2003; Ihara, 2011; Odling-Smee, Laland, & Feldman, 2013; Richerson & Boyd, 2008). Compared to the gene-culture co-evolution account of Boyd's *Not Just in Our Genes* approach, Fuentes and Oyama's proposition may seem to go a bit too far in their desire to marry constructivist and evolutionary perspective, but their observations, especially about the importance of cooperative nature of mankind, are very well worth listening to.

Above, we mentioned paper by Molina et. al., titled *Cooperation and Conflict in Social Anthropology*. This paper deserves further mention for some of its interesting insights, but also some major misinterpretations. Molina et. al. provides a very solid and comprehensive evidence for the extent of cooperation particularly in lower income societies. It does also, much like Mead earlier, correctly identify that cooperation and conflict are not opposing, but rather frequently directly interlocked systems. I will touch upon it further in chapter about cooperation and conflict. I will however note the *Cooperation and Conflict in Social Anthropology* seems to use Sahlins rather than Trivers's take on terminology of reciprocity⁶

⁶ In his *Stone-Age Economics*, Marshal Sahlins borrows the vocabulary of reciprocity from Trivers. However, he uses it ultimately differently, including inventing a category of so called "negative" reciprocity. This term actually refers to actions such as theft or fraud, which are hardly a mutualistic forms of interaction, which directly contradicts the use of the term reciprocity as constituted by Trivers. This odd misuse of already established terminology unfortunately causes some confusion, paper by Molina et al including.

which unfortunately results in a very skewed and inaccurate reflection of the existing evolutionary and psychological accounts of this subject matter.

Similarly, I will only mention a paper by Acedo-Carmona & Gomila, (,2015), titled *Trust Matters* only in passing, as it will be further discussed in a chapter dedicated to the subject of Trust.

Chapter 2 Cooperation under Microscope

Chapter 2.1 Typology of cooperation

While I'm weary of the western academic obsession with creation of extensive typologies that are mistaken for understanding, I believe it is helpful to identify some underlying means to distinguish and describe various forms of cooperation. This will hopefully give us some insights into their functionality.

Forms of "investment"

First, let us consider the specific form of cooperation itself. In his endlessly inspirational "Why We Cooperate" (Tomasello, 2009), Tomasello and Warneken analyze altruistic behavior of young children and identify three core forms of altruistic actions based on the "goods" that are been provided: Commodities, services, and information. Based on that, they identify three categories of altruistic actions which we can use in our analysis: Sharing goods is generosity, providing services is helpfulness, and sharing information is informativeness.

Each of these can be considered as potential form of "investment" into cooperative behavior. Here, however, we need to make some important terminological clarification. In our previous chapter defining cooperation, we mentioned that cooperation involves *action* that may or may not cost him some degree of what Willson calls "evolutionary fitness". Some form of actions – such as giving away goods or services certainly have a fitness cost associated with them (as they involve reduction of our own resources, including time and energy). However, not all actions that may be involved in cooperation have a fitness cost. This is particularly true of acts involving information-sharing, which unlike other goods, is being replicated when shared, rather than merely given away. We will still use the term "investment" throughout this chapter of the paper, but another terms, such as "initiator action" could be used instead.

Either way, we can benefit from being able to distinguish between these three base forms of investment/initiate act into cooperative action: Investment/initiation through offering goods, offering services, and offering information. It is worth to mention though that in reality, an initiator action of cooperation may be a mixture of all of these three.

Forms of contact

Second, let us consider the form of contact between participants in cooperation. We will base our terminology in work of Robert Trivers (Trivers, 1971) and categorize cooperative actions in consideration of the type of contact between participants as different “forms of reciprocity”.

Again however, terminological clarification is in order. It is important here to distinguish reciprocity as we use here from how it used by Sahlins in his Stone Age Economics (M. Sahlins, 2017). To us, reciprocity here means mutualistic nature of cooperative action: in regards to our definition, it’s the “functional consideration”, e.g., expected response / counteraction / return of investment from the cooperative counterpart.

This is terminology is distinct from Sahlins ideas of direct, negative and ballanced/generalized reciprocity, which essentially translate to “giving more than taking, taking more than giving, or achieving a state of balance. As we fundamentally argue cooperation is inherently non-zero-sum venture, this oddly one-sided terminology is largely useless to us, reducing the complexity of the cooperation into a an oddly simplistic good-to-bad hierarchy.

Now: Trivers utilizes distinction of three types of reciprocity, which we will borrow here: these are Direct, Indirect and Generalized (which sometimes also described as “network”) reciprocity.

In direct reciprocity, a cooperative act involves direct investment (initiative action, such as giving away resources or providing services) to a specific person – the receiving person is expected to be the one to return the favor, and the original investor is the one who expects to be the receiving one. Example of direct reciprocity would be a simple exchange of goods: initial cooperative person may invest monetary token into a partner, who then in return hands over a bottle of liquor – either immediately, or perhaps with minor delay.

In an indirect reciprocity, an initial investment is done under assumption of being reciprocated, but not necessary from the same person that received the investment, and not necessarily back to the original initiatory person. This may involve long chains of cooperating people “paying favors” (person A invests in person B, who invests into person C and so on,

potentially (but not necessarily) ending with a person Z investing back into person A). Alternatively, it may involve investments intended to be repaid after extended period of time or only when special conditions are met (person A invests into person B, expecting that eventually, offspring of B will return the investment to offspring of A). Finally, it may be a form of reciprocity that is intended to benefit yet indetermined affiliate of the initial investor (A invests into B, expecting B to return the favor to any member of group X that A is affiliated to).

Generalized reciprocity is a form of reciprocity where the act of reciprocation is not necessary tracked, or tied to specific people. Instead, social institutions (such as conventions, morals, laws, governments, religions etc...) are used as mediators of the circulation of goods, services or information, often forming pools of shared or communal goods or guarantees. An example of generalized reciprocity may be the act of paying taxes (under the assumption that these will result in maintenance of infrastructure), helping in defense of a settlement (under the assumption that this may save many indiscriminate peers), or even an act of charity being done with the assumption that such actions will inspire others to also be more charitable.

Symmetry and Asymmetry

The issue of symmetry of cooperation is a particularly complex and important one, which will present us with most issues. Broadly speaking I find it is *exceptionally* important to realize the full depth of difference between the two most basic types: Symmetrical cooperation, and Asymmetrical cooperation. While symmetrical cooperation is relatively unproblematic, as it assumes all participants in the cooperation have roughly the same type of investment and the same form of contact, it's the asymmetrical level where things start to get very interesting. And it is also asymmetrical cooperation that seems to be by far the most common and impactful in human history.

An example of a symmetrical cooperation can be for an instance, Tomasello's model of a "*stag hunt scenario*". A group of early human hunters invest roughly the same amount of energy and time, all of them chasing down the stag, and once the stag is captured, they all divide the prey equally. While this is certainly a cooperative behavior, and one with very clear non-zero-sum result (all members of the hunt gain access to stag meat, which none of them

could procure on their own, not to mention the trust in the group increases), it does not generate particularly interesting social or cultural dynamic.

Asymmetrical cooperation is so important because it is the actual foundation of all role specialization, all labor division, all social stratification, all complex institutionalizations. This may range from cooperation between teachers and pupils, doctors and patients, to highly sophisticated cooperative models such as loyalty to a leader or institution, participation on public institutions (like accepting a role in in Anglo-American Jury service duty.) While direct and indirect reciprocity can be either symmetrical or asymmetrical, *generalized reciprocity can only be asymmetrical*. However, our analytical tools to further formally root our understanding of asymmetrical cooperation, are limited, as it presents us with a subject of truly monumental scale, and laden with problems of conceptualizations.

There are two primary problems we have to contest when discussing asymmetry in cooperation: its multi-dimensionality, and the issue of (in)commensurability. There are also two unfortunately secondary problems that arise in connection to evaluation: fairness, efficiency, optimization, sustainability. We'll tackle these more in chapter 5.

Multi-dimensionality refers to the fact that the forms of cooperation can take *exceedingly* complex forms, involving potentially tens of thousands of people cooperating on vastly different levels. The issue of commensurability is the main reason why I find so many economical and simulation-based studies so fundamentally unsatisfying. Mathematical modeling of asymmetrical cooperative behavior faces the fundamental problem of quantifying costs and values of individual's investments and advantages: in complex, asymmetrical cooperation, these may take *vastly* different forms and nature. One may sacrifice his freedom to wear certain clothes (such as wearing provocative or vulgar imagery) for gaining the benefit of being on average greeted more warmly by strangers. One may sacrifice two years of his life to military service in order to feel safer about his own nation's future. One may buy others drinks in order to gain temporary sense of increased status. How do we quantify, and compare these types of action? These investments and gains are so often, incommensurable, meaning they are *exceedingly difficult* to quantify and compare. This problem is even elevated by the potential rift between the nature of the cooperation, and the perception of the interaction on an individual subjective level, which we'll also address later.

The incommensurability of investments and returns does highlight couple of interesting facts. One is the necessity of context-specific nature of inquiry into social phenomena, and the danger of generation of sweeping, generalized judgements, especially when it comes to value-charged ones, which we will explore in much greater detail in chapter 2.5 and 2.6. The second is the interesting reification of the importance of qualitative research methodologies. As the subject of incommensurable forms of investment fundamentally border on questions of phenomenological experience, and value-ascription, neither of which are easy to translate into quantitative form, qualitative research – very much *context sensitive* qualitative research – may be our best tool to map out stances, perceptions of investments, perceptions of function and perceptions of gains, within cooperative behaviors that involves such fundamental and deep levels of asymmetry. This I believe is what makes this subject so fundamentally important to social anthropology as a discipline in particular.

While there is a considerable volume of existing literature trying to analyze symmetry in cooperative action throughout theory of games and formal economy (Alós-Ferrer & Farolfi, 2019; Axelrod, 2006; Bone, Wallace, Bshary, & Raihani, 2015; Chin, 2009; Isoni & Sugden, 2019; Olson, 1971; Rabin, 1993; Sheposh & Gallo, 1973; van Witteloostuijn, 2003), I find most of the literature unsatisfying, as they struggle to deal with the two problems established above.

The most dire example of this is Olson's rather famous *The Logic of Collective Action* (Olson, 1971), a work that effectively concludes that at a certain size of a social unit (values approaching 1000 members or more), providing all members are capable of rational decision making, any form of generalized cooperation (which we remind our reader, is by definition a most common form of asymmetrical cooperation) is, objectively speaking impossible, as the benefits of free-riding will always outplay the benefits of cooperation itself. The existence of every single society consisting of more than 1000 (reasonably) rational agents functioning on principles of generalized reciprocity, speak to either a fault in Olson's definition of "rationality", or in his mathematical values ascribed to benefits and drawbacks of cooperative/uncooperative behavior.

Solving the subject of cooperation (a)symmetry, and its multidimensional nature, is beyond the scope of this paper. It may be beyond the scope of entire libraries of research at

this point, as it is essentially, the subject of 99% of all human cooperation in all of its varied subjects – and as I argued above, cooperation is essentially, 99% of what humans *do*. Asymmetrical social relationships have gained somewhat of a negative status in recent academic discourse, partially due to prevalence of left-wing oriented philosophy and preoccupation with issues of power, as asymmetry tends to be often interpreted as a result of unequal or unjust distribution of power.

From a cooperative-focused perspective, however, asymmetry of cooperation is often not only beneficial, but straight up desirable, as it allows for much greater diversification and specialization of human roles and positions, greater pressure towards co-dependency and potentially larger gains for all involved. To illustrate what we mean by asymmetrical cooperation, let's again consider the cooperation involved in relationship of a doctor and his patient, elder and youth, or a teacher and his pupil, a commanding officer and his troops. All of these relative position pairings are undoubtedly asymmetrical, yet reducing them to mere states of superiority and inferiority would be hugely misleading, if not straight up dishonest, as they all form pairings that mutually greatly benefit from their continued cooperation, and in fact may often form inter-dependent couples.

One thing is for certain here though: Asymmetry of cooperation generates social dynamic far beyond what the limited scope of symmetrical cooperation can provide.

Compliance

One last specific form of cooperation needs to be defined, and that is **compliance**. I shall define compliance as a form of cooperation that is unique in that it isn't defined by action, but rather by *inaction*. Compliance occurs when certain cooperative behavioral strategies are already fundamentally ingrained into the social group, to a point where acting in a cooperative matter is already the behavioral standard. Under such circumstances, we need to acknowledge the fact that mere act of continuing in the existing pattern, rather than attempting to interrupt it, is also a form of cooperation. To be compliant means to choose to perpetuate the existing model by remaining inactive, refraining from deviating or disrupting the model.

Chapter 2.2 The Information Must Flow

Now that we have at least the broadest of ideas of what forms may cooperative strategies take, let us take a look at a form of cooperation I believe is most crucial. It's the foundation of all more complex forms of cooperation – the ones that we see as synonymous with the very idea of “culture”, in my honest belief both evolutionary, and functionally.

But to do that, we will have to take an excursion to an entirely different field, and for a moment, explore (seemingly) entirely separate discipline.

Our next subject will be cooperation on an information level, also known as “**communication**” and for that, we will need to delve into the fields of General Linguistics, and in particular, the domain of semiotics. We will explore briefly the existing theories of sign and meaning, as they are the foundation of all communication, and with that, we will have to also comprehend (or re-learn) a concept of significant importance: the notion of Arbitrariness.

Information-sharing is the root of cooperation

There are three reasons why information-sharing is so crucial to understanding human cooperation, and through it, the entirety of human culture.

First, as mentioned above, information-sharing is a form of investment or cooperation-initiating action that has no (or very small) direct fitness cost. Information is replicated, not lost when shared. This makes it, unlike other forms of more material or energy sacrifice heavy cooperation, far less “vulnerable” to exploitation by thieves or free riders. This does make it, in my eyes, likely to be the very first wide-spread cooperative strategy in human evolution.

Second, information-sharing is the key to preservation and continuity of all cultural strategies and technologies across multiple generations. This directly ties into a key concept that I believe cannot be separated from the idea of culture itself: permanence of cultural patterns.

There are countless different, and often contradictory definitions of “culture”. But one aspect that is shared by all of them, without exception, is the notion of permanence or

continuation of some dimensions of human behavior across time. This cannot be facilitated without the process of information sharing.

There is evidence of existing strategies and technologies being passed, accumulated or build upon on within cultural regions for hundreds of thousands of years, from eras of obligatory forager societies (Clutton-Brock et al., 2009; Foley & Gamble, 2009). This is particularly interesting given observations about forager and scavenger bands likely not being composed entirely of kin-related members, and the existence of significant drift between them, provided by Hill et al., (2011). The implications being that members of early human societies were not shy about sharing (or at least, not hiding) their own behavioral and technological strategies – even with non-kin and non-permanent members of their group. The *information* about their means and tools was likely readily available for everyone who was not engaged in direct hostilities.

Finally, information-sharing is key for coordination, and coordination is key to all forms of other complex cooperation's. Even symmetrical cooperation, if it involves multiple agents, require means of coordination and communication of states of each individual. In more complex, asymmetrical cooperation, this becomes even more pertinent.

In the definition of cooperation I've provided at the beginning of this paper, there is a mention of the fact that cooperative act has to be done in **functional consideration** of another's acts in a way that produces a non-zero-sum result. The "functional consideration" implies the possibility of this interaction being entirely mediated and even entirely unconscious. To illustrate such scenario: in a simple act of buying a bottle of beer, one is not only engaging in direct and very conscious cooperation with the vendor, and indirect, but usually still somewhat conscious cooperation with manufacturer and all the members of the chain of production, and even with law and legal institutions (which regulate under which conditions one is or isn't allowed to buy alcohol). But he is also engaging in cooperation with institutions such as the Central National Bank, which prints and back up the currency one is using, and even the International Monetary Fund that further facilitates that process, which are things we are usually largely ignorant about. We all cooperate (by compliance) with a massive number of legal, political or logic institutions at every level of our life, but we rarely are conscious of the majority of them.

However, examples such as this one are very much specific to highly complex, highly structured societies – ones where the number of interlocking cooperative systems is so large one cannot possibly keep track of all of them, and simply puts his trust in them working without his awareness. This, rather obviously, was not the case throughout the majority of human history.

In the earliest days of human history, cooperation had to be – at least for a major portion of it – direct rarely mediated by institutions. Forager barter happening between 150 to 25 thousand years ago (Abulafia, 2011; Barbier, 2015; Watson, 2005) was hardly mediated by some kind of third-party institution. Inventions such as unified currency systems, legal overseers and supervisors of trade are a staple of first forming state societies. In early stages of our cultural history, the “functional” clarification can be dropped: the cooperating members had to be **consciously** considering the agency and state of their peers in order to cooperate. This is true of both coordination (during actions such as hunt or cooperative breeding), and barter or exchange. And in order to be able to consider the state and agency of your cooperation partners, you need to be *informed*. There has to be a channel through which information about members of the cooperating troupe can flow.

There has to be a way to **communicate**. And for that, there has to be a medium, through which *meanings* are conveyed.

Symptom, Sign, Meaning and Arbitrariness

This is where the aforementioned excursion into general linguistics, and semiotics in particular, has to take place.

In between years 1906 and 1911, a Swiss linguist named Ferdinand de Saussure was providing a series of lectures at Geneva University, which would (three years after his death) be eventually compiled into a single book, named *Cours de linguistique générale*, first released in 1916. This publication would not only become the foundation of an entirely new discipline – General Linguistics – but also prove to be one of the most influential publications of the entire 20th century. Among many subjects this book, there was a section dedicated to what would later be known as “semiotics” (although Saussure himself originally used different terminology), the field which studies signs and meanings. Within this segment, de Saussure

formulates a single, incredibly important thought, one that for many would become the key law of semiotics: The principle of **arbitrariness** of the sign (Saussure & De Mauro, 2007).

To put it simply, Saussure claims the meaning of a sign is possible entirely through a process of social ratification, called “arbitration” – a specific form of social agreement or convention. According to Saussure, there is no *natural and necessary* connection between a sign, and its meaning (the object or concept or principle the sign represents). This applies to any and all forms of signs – from traffic signs past words to graphemes used to transcribe those words: Semiosis – the production of a sign, a vehicle of meaning and thus communication – is to Saussure an entirely a social process – or *social construction*, if you will.

Now, to be fair to the discipline and its history, de Saussure was not the first one to thoroughly examine the problem of signs and their meanings. In particular, American logician, philosopher, and one of the founders of Pragmatic philosophy, Charles Sanders Peirce has created his own extensive semiotic theory (Peirce, Hartshorne, Weiss, & Burks, 1994), which is even today often placed into opposition or framed as competition to Saussurean philosophy (Gvozdiak & Univerzita Palackého, 2014). This is being done mainly due to an ongoing and rather bitter disagreement about the nature and veracity of Saussure’s core claim of arbitrariness.

The claim of the purely social nature of a sign, the *arbitrariness* of it, has been as much contested and opposed, as it has been influential. Many major linguists have contested the idea, including such personalities as Bolinger (1949), Jakobson (1960, 1965), Benveniste (1971), Haiman (1980), or Bredin (1996). While each of them presents a different angle from which to critique Saussure’s arbitrariness, they all more or less fall back on Peirce’s semiotic model instead.

Compared to de Saussure, Peirce’s model is certainly more complex and multifaceted. Instead of simple diadic model of sign – signified, he relies on triadic system accounting for the sign-vehicle (the representation, such as a word or a picture), the object it represents, and an *interpretant*: an abstract concept functioning as a mediator between the two. He further analyzes the relationship between the sign-vehicle and the object into three factors: **iconicity** (actual resemblance between the sign-vehicle and the object), **indexicality** (causal

or psychological connection between the two), and **symbolicity** (degree of pure convention). The common illustration of this model usually goes like this: pictogram depicting two burning logs is an icon of fire, an image of smoke above a forest is an index of fire, and the actual sound of the word “fire” is a symbol for the object of fire. There are more aspects to this analysis (as Peirce also analyzes the nature of the interpretant and its relation to the object into further taxonomies), but for our discussion, this overview should suffice.

All of the above mentioned opposers to de Saussure’s concept of arbitrariness of sign ultimately argue that some (or according to some, all) forms of signs do actually display degrees of either iconicity or indexicality, and are therefore *not arbitrary*.

I am recounting this whole discussion for the sake of the transparency of my further claim, which while partially supported by Gvozdiak (2014) and Tomasello, (2009), I consider heavily my own contribution to this discussion.

I believe that Ferdinand de Saussure is right. *All signs are arbitrary*. This is a necessary nature of the fact that communication is inherently a cooperative process. And I believe that the critics of this notion misunderstand both what de Saussure means by the concept of arbitrariness, and misinterpret Peirce’s model at the same time. The two central misunderstandings here are:

A) each class (icon, index and symbol) of Peirce’s taxonomy was intended by Peirce to be mutually exclusive, and

B) Saussurian arbitrariness itself is exclusive with either iconicity, or indexicality.

In my refutation of these misunderstandings, I agree with Morris’s extensive commentary on works of Peirce (Morris, 1977), that iconicity, indexicality and symbolicity are factors, dimensions that are each represented to certain degree and *together* constitute the nature of the sign. To identify a particular sign as “icon” or “index” is only a shorthand for which of the three factors is most dominant in that particular sign vehicle. Furthermore, I believe that Peirce’s implication is that while iconicity and indexicality can be absent, a degree of symbolicity is *always present* in any man-made sign. A pure icon is actually a replica of the object (like the famous map from Borges’s story), a pure index is what I will in concurrence

with Eco call a “symptom”, a naturally occurring ability to identify of correlation or causation between two events.

A sign, as a concept defined for the purpose of study of human communication, has to have a degree of symbolicity, a social intervention utilized in its formation, in order to become an element of semiotic lexicon, a shared set of tools used for cooperation (communication) between multiple individuals. Such as the principles of simplification used in a production of a pictogram or conventionalization of an indexical relationships. It is not hard to find examples of pictograms that are entirely transparent to one social group, but utterly confusing to another one. In conclusion, I believe that Peirce’s taxonomy is actually entirely congruent with de Saussure’s arbitrariness requirement (at least as far as man-made sign systems are involved), with the Peircean mandatory presence of “symbolicity” dimension corresponding to the notion of arbitrariness in de Saussure.

As for the other misunderstanding, Saussure himself does not actually state anything about the potential history of the sign-creating process. He does not deny that iconicity or indexicality may occur in a sign-forming process: he merely seems to consider them entirely irrelevant. Degrees of iconicity or indexicality do not give the sign a meaning, because (as I argued above), they themselves do not produce a sign (only replicas or symptoms): the arbitrariness, the symbolic dimension, the social confirmation of their role does. They only gain meaning when *people start using them as such*.

I strongly agree with this view, and I bring it up because to me, all of this is *fundamentally* linked to the real subject at hand: Cooperation. I do not think it is a stretch to suggest that cooperation predated development of advanced semiotic codes, and that it is, in fact, the *main, if not sole* driving force behind development of semiotic systems: where sign codes and eventually, language, develops as a gradual extension of more base (symptom-like) forms of cooperation and information sharing.

This is where I find a fault with Eco’s otherwise fantastic analysis (Eco, 1976), in chapter 1.8 (Tool). In this famous example of an Australopithecus developing semiotic capacity (and thus, in Eco’s account, culture), three conditions need to be met: A Symbol S (associated with a “name/sign-vehicle” connects an object P1 with a function F, and at the

same time, generates the capacity to be also connected to related objects P2, P3 etc..., essentially gaining the ability to function as a class or category. Umberto Eco stresses out that the Symbol S, its “name”, and its function do not have to be voiced or realized: the mere transformation of mental perceptions of the crafty ape is sufficient.

I do believe this is not a correct assumption. I believe this is still a state of symptomatic mindset: items P1, P2 etc. are mere *symptoms* (precursors to the communication-enriched formation of an actual sign) of potential function F. The process of semiosis, as well as the process of founding culture happens when our titular progenitor develops a way to communicate the function F through the “name/sign-vehicle” to other members of his band. To use Sebeok’s terminology, mere identification of function with a class of objects within one’s umwelt is not enough for us to speak about formation of a sign. It’s the *intersection* of umwelts of multiple members of a group where a sign is being born.

Eco correctly identifies that the most vital consideration for comprehending the idea of a symbol is its relation to function. An identification of a symbol – even an identification of a symptom, (which I do not consider a true sign, but rather a “mere” subject-based theory of causal or quasi-causal relationship) is marked by an internal or external change/process within the interpreter. In here, I think it’s good to consider Wittgenstein’s idea of a language game (Wittgenstein, Pechar, & Blažejová, 1993). Symptoms and signs are markers for alterations of our mental state, and the way it relates to external reality. They have a *processual* role: They contain sets of hidden associations, instructions, cautions, guides, that further either inform our direct behavior, or alter our mental maps of reality. In fact, as Dan Sperber, Deidra Wilson or Robyn Carston imply (Carston, 2002; Sperber & Wilson, 2001), their meaning is defined by their *Relevance* to our mental, perceptual or behavioral world (or Umwelt, should we want to stick to Sebeok’s timeless terminology).

I do however think that Eco is mistaken when he assumes the process of creating symptomatic mindset, where events or items P1-PN can be encompassed by an individual by a single mental class S through their association with certain function, an actual cultural unit, a sign, is already formed. A symptom, which Eco’s ape has produced, has no intersubjective form of existence. It has no cooperative function. It is not yet the birth of culture, as on its own, it cannot be communicated, passed on to others. It will inevitably die with its inventor.

It cannot be yet related to the cooperative nature of our most fundamental nature – it cannot serve in cooperative behavior, especially in the process of information-based cooperation – the one that is by Tomasello’s account by far the most important of our evolutionary toolset.

If above mentioned authors are to be believed, information-based cooperation is at the very root of the formation of our species. However, I think authors like Eco reverse the causality of the events: Cooperation (especially information based) was what drove that capacity, not vice versa. The necessity to exponentially expand our information-sharing and circulating abilities evolutionary condition the “invention” of a sign: a unit of intersubjective existence, a core tool of communication, and ultimately, production of “pooled” knowledge (knowledge or behaviour patterns persisting through generations and even spreading “horizontally” between social groups) that we call “culture”.

Let us now consider the proposed situation. Eco Australopithecus One not only invents a symptomatic model capable of creating classes of objects, united by S-symptom comprehension and association with a function. Now, he needs to find a way to employ this discovery within a cooperative process. The issue here is that ensure that the S-symptom comprehension is transferred, or intersects with the umwelt and the mental map of his peers. As mention, in order for cooperation in information sharing to happen, both Australopithecus One and Two need to form a corresponding comprehension of S.

They both need to find a way to make sure they are talking about roughly the same thing

The problem is that the nature through which the association S to objects PN can happen in a countless possible way.

Let us mention a common illustration of the process of indexicality of meaning in Czech language. The Czech word for a bear: “medvěd” – originally “medojed” referring to the act of “honey-eating”. This is a textbook example of indexical properties of the sign-vehicle construction – the concepts used to construct this word refer to common psychological association between bears and fondness of honey. However, the same class of objects (bears) could be associated (and even delimited) with a sign-vehicles through many other criteria. It may have been also “salmon-hunting” or “winter-sleeping”. Or it could be more iconical

“Big Brown”. Or indeed, the entirely arbitrary “Ursus”. Other factors than heavily perceptually based iconicity or indexicality can become relevant as well. Economy of phonation, elimination of potential communication noises, pure natural stochastics, Jakobson’s “poetic phonemic principles” and countless others. **The plurality of ways to establish sign-vehicles and associate them with object or concept classes *threatens to result in a crippling amount of miscommunication.***

And if there is something we can safely say about communication, it’s that it is an iterative process, that needs to reliably mediate between multitudes of individuals. And thus, it is subjectable to the issue of optimization. And this is where a new tool of communication *needs* to be introduced. A tool that allows to cull the plurality of symptomatic comprehensions, and to *stabilize* the intersections of many individual *umwelts*, intersections which are then becoming the vehicles for communication. Or as Tomasello puts it:

“And without this grounding (in cooperative systems), conventional communication using “arbitrary” linguistic symbols is simply noise.”

(Tomasello, 2009, p 74)

And that stabilization: that I believe, is the process of *arbitration*. A purely function based process: a tool to ensure stability of the used communication code through the iterative and extended processes of long term, cooperative behaviour. As many have pointed out, this may be considered nothing more than a process of conventionalization. And I will argue that they are right: arbitration is in my opinion a specific form of conventionalization. The significant difference however lies in the *functional dimension* of arbitration. It’s not merely a stochastic process of random selection and calcification of communicational/behavioural patterns:

Arbitrariness of meaning an emergence-driven, functionally necessary step to ensure information cooperation can happen and be maintain over extended periods of time with relatively minimal risks of miscommunication. Arbitration of a sign (or later, of entire cultural concepts) is an *evolutionary answer* to problem of finding intersections of individual experiences/comprehension necessary for communication and cooperation to happen.

The implications of this realization may be more severe than they initially sound. Many modern social studies authors stress out the role of language/category-based element of social construction of reality (among many, many authors, let's mentioned Barthes & Howard, 1983; Berger & Luckmann, 1990; Cojocaru, Bragaru, & Ciuchi, 2012; Foucault, 2002, 2005) Very scarcely though, do they acknowledge or appreciate the fundamentally *cooperative* and thus functionally oriented, non-zero-sum result producing element of the process.

The concept of arbitrariness, and its profound link to the process of stabilization of cooperation strategies, does not begin and end with the process of semiosis. It has profound implications for the entirety of social studies, especially for fields of social constructivism and culturalism, which often use semiotic and social-constructing arbitrariness as a mere excuse to disregard or devalue older forms of social organization. Arbitration of meaning (which encompasses arbitration of classes and categorizations we rely on, and thus founds and validates social norms, expectations, roles, folk-belief assumptions, ideological frameworks) is the foundation of “social construction” of reality. It actually explains the necessary presence of the “social” in the process of construction. Arbitration is necessary to establish concepts that that Luckman and Berger later define as “social knowledge”.

Conclusion

As I said, in this segment of the paper, I am in part rehabilitating Robert Frank's *Heart on a Sleeve* hypothesis, except instead of physiological capacity to express mental states and intentions, I believe the key element here is the emergence of arbitrariness and sign as the key vehicle of communicating states and intentions. Arbitrariness of sign is what allows us to create a stable, reliable and accessible tool to share information – about ourselves, or our surrounding. And due to its socially constructed nature, it is also a necessary component of us being able to create categories and concepts necessary to form foundations of institutional systems, becoming the birth of the side of our existence we now like to call “socially constructed reality.” The importance of this step – and the utility of the terminology used here, in my opinion can be hardly understated – both from a perspective of history and evolution of cooperative behavior, but also in our understanding of how and why social convention or arbitration actually directly forms the conceptual frameworks we see as “social knowledge”, and through it, “socially constructed concepts.” We cannot really further our understanding of both cooperation itself, and the society that stems from that cooperation,

without internalizing the implications of this process. Implicit acknowledgement of the role semiotic arbitrariness plays in our formation of social reality is necessary for all further steps of our argumentation.

Chapter 2.3 Trust

As per our discussion about the definition of Cooperation in Chapter 1, Trust is an essential component of cooperative behavior, and deserves some further analysis. There is much existing literature on the subject of trust, with sometimes shocking divergent perspectives and accounts. I wish to explore some of these, before I'll get to providing my own perspective on the subject, which will be, like all subjects of this chapter, key in presenting what I consider the heart of this paper – the construction of what I will call “Cooperation-conscious paradigm” for social and sociobiological studies.

Broadly speaking, the concept of trust has been studied from several different major field perspectives. The economic view, mostly based on mathematical modeling developed through Theory of Games, the psychological view most heavily pre-occupied with developmental, evolutionary and early-socialization issues, and a social-constructivist account, most heavily focusing on role of trust in modern economic and political systems. With this great variety of points of view, it is inevitable that even the very definition of the concept becomes complex and divisive.

The Logic of Trust

From the more mathematically inclined field of view, trust has been essentially formally studied and defined through works of Theory-of-Games inspired sociobiologists and mathematicians, such as Trivers, (1971) and Axelrod (Axelrod, 2006).

Axelrod's account is particularly interesting, and entirely derived from his profound exploration of the implications and possibilities Theory of Game's most notorious model game: The *prisoner's dilemma*. According to Axelrod, trust is essentially a mathematical matter, a logical, unavoidable product of rational behavior in iterative version of Prisoner's Dilemma, ultimately just a probability awareness that will emerge as rational agents optimize their behavior within this experimental simulation of cooperative behavior. In this account, trust develops as a way to both combat potential exploitative and uncooperating partners (by

giving trust only to those who previously proved to be cooperative), and as a means to combat potential communication noise that may affect the outcome of the game (Axelrod, 2006), or its interpretation. As such, Axelrod is more preoccupied with what happens when trust disappears, and what conditions are needed for it to be re-established. We mentioned above that unfortunately, the mathematical modeling systems, while certainly informative, may have certain problems with internal consistency in results when it comes to increasingly complex situation – a problem likely linked to the issue of incommensurability of actual cooperative outcomes. This has led to an extensive follow-up research yielding highly disparate results on the actual efficacy of trust as a Theory of Games strategical solution (Chin, 2009; Isoni & Sugden, 2019; van Witteloostuijn, 2003). And in what may be the most extreme application of mathematical approach to trust, *Castelfranchi & Falcones Trust Theory: A Sociocognitive and Computational Model* (2010) not only expands on the existing mathematical models of trust, but further argues for its relevance and use in the field of neuro-cognitive sciences, programming, and A.I. development.

In something of a stark opposition to Axelrod's "Trust as a rational self-interested agent's logical calculation", stands the views on trust coming from the psychologically and developmental oriented camp.

The Soul of Trust

The arguably most influential psychological theory of trust comes from Erik Erikson's extended library on trust, identity and human life cycle (Erik H. Erikson, 1993, 1994; Erik Homburger Erikson & Erikson, 1998; Simpson, 2007). For our account, we should also mention Hrdy, (2011) and Tomasello, (2009) as representing the more psychological perspective on trust.

The psychological account of trust tends to heavily focus on the subject of personal development, defining it not as a result of rational calculation, but rather as a form of emotional or intuitive predisposition, likely linked to the unique nature of human prolonged and investment-heavy child-rearing strategies. Tomasello, (2009), basing his views on comparative experimental studies on human and primate infants, leans towards a more neuro-genetically conditioned, virtually species-wide predisposition towards trust, and thus towards altruistic and cooperative actions. Hrdy, (2011), arguably much more in line with

Erikson's original view, sees trust as a product of early childhood development and earliest stages of socialization, firmly rooted in parent-child interactions, which fuels her theory about the role of cooperative breeding and "grandmother contribution" (and resulting "generalization" of trust bonds spreading outside of kin groups). I have little doubt that both accounts are ultimately compatible and not mutually exclusive.

Neither do I feel that Axelrod's Theory-of-Games perspective is incompatible with the psychological account. While his views are built on entirely different conceptualization of the subject, they also each focus on a slightly different set of questions – with Axelrod mostly studying how from a phylogenetic standpoint, trust became a common, reliable tool in human adaptive arsenal, whereas the more psychological accounts seem to be better at explaining how it seems to be produced, stabilized and reproduced on an ontogenetic level.

Another interesting account of trust has been provided to us by Acedo-Carmona & Gomila, *Trust Matters*, (2015). While not going very deep into the nature or core functional mechanics of trust, it is a good anthropological account of trust working in practice: illustrating how trust formation and trust reproduction happens on a concrete, detailed, individual social group-based level. Acedo-Carmona and Gomila ends up leading towards a surprisingly ecological account, tracking how existential and subsistence-based threats inform trust-formation among small scale groups, with the conclusion being that greater sense of existential danger seems to reinforce formation of stronger trust bonds between non-kin members, while more safe environments reinforce trust between kin-groups but do not foster trust towards non-kin members quite so strong. This observation is interesting, because it does not seem to exactly align with my experience with role of trust and threat in larger societies, where it seems reverse correlation is more common and likely.

Lack of Trust in Trust

A far more different, and sometimes somewhat disturbing accounts of trust are provided to use by some members of the more strongly culturalist side of the academic spectrum. In an article titled *Trust and the Other* (Coates, 2018), Jamie Coates presents us with a completely reversed outlook on the subject. Drawing from other authors, such as Broch-Due & Ystanes, (2016), Cohen & Sheringham, (2016), Liisberg, Pedersen, & Dalsgard, (2015) or Luhmann, (2017), Coates goes through a strange journey of gradually increasing

distrust of the concept of trust. Beginning his concerns about the notion of trust (at least as a generalized and universalist concept) being inherently ethnocentric (specifically, English-speaking-male-centric), *somehow* managing to tie it to history of colonialism (page 2). From there on he arrives at the conclusion (in concurrence with Susan Liisberg and Sartre no less!) that trust may be, in fact, a form of a dangerous self-deception (page 4), and implicating its role in issues of ethnic conflict and power abuse (page 5). It is quite worth pointing out that within this whole paper, the word “cooperation” does not get mentioned once. The word “power” however appears on five separate instances.

Now. I do not wish to entirely dismiss the idea of studying the concept of trust from a more cautious, value-neutral standpoint. And it is true that both the mathematical, Theory of Games approach and the psychological accounts do in general tend to present trust as an inherently positive-implication laden notion to a degree: in works of Axelrod and his colleagues, usually by exposing it as a valuable tool of optimization model social interactions, while in the more psychological accounts, it’s discussed generally as a fundamental ingredient into one’s personal psychological well-being. And I will discuss the issue of value-ascription and potential problems with it in the final chapter of this segment of the paper. So, to mention the reality that trust can be misplaced, or abused in some instances, is not without merit.

However, the sheer degree of disconnection of both Coates own paper, but also the numerous works he cites, from *any* existing psychological, mathematical, cognitive or evolutionary perspectives on the subject of trust is staggering. Instead, the core sources Coates seem to rely on come from theory of post-colonial studies, existential philosophy (or more precisely, the left-leaning works of both Sartre and Beauvoir), and critique of a capitalist society. Let us just consider the implications here: Me, a denizen of a country that not only was never a colonial power, but has in fact being on the receiving end of imperial expansionism multiple times, have apparently colonial mindset when I talk about trust. Which is admittedly, a rather novel discovery for me.

In a stark irony, another culturalist account, aptly titled *Trust is Political*, an editorial paper for a very misleadingly named “Journal of Trust Research” (Print ISSN: 2151-5581 Online ISSN: 2151-559X), Möllering (2021) presents us with a slew of works on the subject of trust that are, to be honest, terrifying. Presenting the arguments of Seligman (2021) and

Bergbower & Allen (2021), she directly concludes that the importance of analyzing trust lies in its potential usability to subvert or disarm rational doubts and reservations that are often cited as reasons for why American public still supports the Conservative party. The implied call here, is, no joke, encourage blind faith and weaponize trust, to avoid rational considerations, as a tool to *securing greater power in the hands of the Democratic party*.

A reminder: Journal of Trust Research is presenting itself as an academic, peer-reviewed journal, and while I can't find any information about their funding, I think it's safe to assume it is being funded in great part by academic institutions, such as the University of Amsterdam, which is mentioned as its founding place.

The remaining articles presented in this particular volume are not exactly different. Without going too much into the details, the entire "Study of Trust" is actually a study of trust as a political tool, a weapon used in context of a greater, and very clearly politically binary (good vs. bad) defined sociohistorical and political playground. (I encourage those who want to see it for themselves, the journal is easy to find based on the identifiers I've provided).

And once again, within the works of Issue 11, I have not found the word cooperation used once. I lost track of how many instances of "opposition", "conflict", and "power" are thrown around.

Let me not mince words here. This particular manifestation of Culturalist approach to trust does not seem to study trust as a concept. They study trust as a means to an end within a self-perceived binarity of cultural conflict. In case of some conclusions presented in The Journal of Trust Studies, this isn't even a secular, much less academic, point of view.

And once again: the apparent, *absolute* disconnection about any study of trust as performed and presented in any of the other, more positivist-inclined disciple, is staggering.

Combined Perspective: Dimensions of Trust

Let us for a while ignore the strange culturalist approach of trust, which seems to suggest at it is at best, an ethnocentric concept and at worst, a weapon of cultural conflict, and focus on more actually constructive theory.

For the purpose of this paper, I will attempt to unify and modify both psychological and mathematical concepts of trust into a new form, to create an explanatory model that will hopefully help us to understand the purpose behind my “cooperation-conscious paradigm”. This approach to trust is based on two assumptions: Trust can be studied from a multileveled perspective. As both an individual proclivity, and as a collective social resource. And two, trust is directly correlated to willingness to engage in cooperative behavior. Let’s go over some underlying assumption.

1) “Trust” is not a singular concept, but rather, it hides beneath several specific forms of *social phenomena*. This may be conceptualized as different concepts, but also as merely different levels of analysis of one and the same. I shall divide these as “individualized (“Selective”) trust”, “generalized trust” and “meta-trust”, each of which I believe relates to a slightly different form of cooperation.

Individualized/Selective Trust refers to the level specific predispositions of a specific individual (or a group) towards other, also specific individual (or a group). It may be formed by a mixture of one’s biological predispositions, his developmentary and personal history, social norms, and experience with a specific concrete “other”. As such, individualized trust is highly connected to individual’s life experience. Calling it “selective” refers to the fact that it is a form of trust that can be very easily withdrawn, as experience may quickly teach us to change our priorities and propensities. This form of trust tends to be almost always conscious and voluntary.

It should come as no surprise that individualized trust is a key ingredient in direct reciprocity, and a major one in indirect reciprocity, as it involves the process of selection of particular individuals or groups that are deemed sufficiently trust-worthy.

Generalized Trust is a trust that gains an institutional dimension, and gains a more inter-subjective form. Generalized trust is a collective trust in function of institution or institution-mediated forms of cooperation. Unlike individualized trust, generalized trust requires participation on an intersubjective, normative reality, as maintaining the trust in mediative institution requires broader social agreement. Typically, generalized trust is focused on maintenance of *arbitrary* systems, such as principles of law, rules of language and

agreement on meanings of symbols, or adherence to moral systems. All of these social structures require social arbitration: a form of collective agreement or convention, maintained by the general compliance or acceptance of at least significant portion of the society.

Meta-Trust is a trust in Trust itself. Whereas both individualized and generalized trust could be seen processual or functional (as they directly alter our behavior within the society), meta-trust is the level of comprehension, realization-rationalization of our role within the systems, and analysis of the previous two systems. It is, essentially, your own attitude towards the existing, previously described definitions and forms of trust. For our analysis, meta-trust will be the least important to study, though we already touched upon this in our discussion of culturalist approach to trust.

2) Trust is best conceptualized as a resource, or in accordance to our previous division, a class of resources. In this way, Trust can be seen as akin to information, knowledge, modern abstract currencies, or other non-material adaptative tools of our species. This resource may manifest as individual bound, or shared across a wide social group. With this, it is important to state that trust has a significant *functional* dimension. One of the ways to conceptualize trust is to see it as a (conscious or unconscious) calculation about the probability of a cooperative venture being successful, or as an individual, group or institutions willingness to take risk involve in cooperative ventures. As such, trust can be seen as a cumulative phenomenon. This is by no means the full definition of trust, but a functional and cumulative aspects of trust are important to keep in mind.

3) While forming at least three different forms, trust is transferable from one form to another. Individual trust can turn into generalized trust, while generalized trust may foster individualized trust. Each “form” of trust we present is more akin to a perspective or level of study of the subject, rather than some form of essential category. Trust (and lack of there off) flows and ebb through the entirety of our social life. It’s both an intersubjective functional institution, and personalized, experience-based sentiment, and most likely, mixture of both. The explanation behind this oddly fluid nature of trust is actually rather simple:

Trust must exist, in some form, in all forms of cooperation. And as we already established, that covers almost the entire range of our socio-cultural interactions. As such, trust will inevitably take as many forms, and can be studied from as many perspectives, as there are possible forms of such social contacts.

4) Trust has a fundamental self-replicating property. Generating trust leads to more willingness to engage in cooperative behavior – engaging in cooperative behavior generates more trust.

On a final note: understanding trust on two separate levels – as a statistical phenomenon determining the frequency and volume of risk-taking individuals are willing to undergo in cooperation, and as a personal, subjective experience. These two levels of analysis of trust may not always align, and for that reason, again careful, ideally qualitative inquiry may be important part of our analysis. One may subjectively experience decrease or lack of trust, yet his behavior may display other propensity, and these kinds of subjective perception, and pragmatic application disconnects provide us with some very interesting potential problems and challenges to study. Displays such as public opinion polls confirming low level of trust of public towards its government, yet not an increase of actually in compliance or rebellion towards that government, are a model example of where dual analysis of trust needs to be conducted. This also leads us to the next section.

Chapter 2.4 Cooperation, competition, and conflict

The total width that the nature of relationship between cooperation, competition and conflict presents us with is, much like the width of the variety and complexity of asymmetrical cooperation, beyond the scope of this paper. So here, I will only try to establish a handful of facts that I deem absolutely essential for going forward.

Before we continue to study the extraordinary complicated nature of relationship between concepts of cooperation, competition, conflict and related subjects of exploitation, incompatibility of varying cooperative strategies, and finally the risk of cooperation collapse, we need to once again set up some terminological and conceptual base grounds.

Firstly, we need to distinguish several modes or levels on which contention and cooperation can interact. We shall define these as “Conflict and competition” as a *natural and*

intended (or at least anticipated) aspects of existing cooperation models. By this we mean the fact that cooperation itself can facilitate forms of competition or conflicts as a natural element of the social landscape it produces, at times quite deliberately, as a part of its intrinsic functional dimension. To put it simply: Cooperation sometimes encourages competition and conflict as beneficial tools, provided they happen under restrictions and limitations of their parent system. This is the level of analysis which we will examine in the following chapter, as we'll quickly glance over subjects such as sport, natural competitiveness within merit-rewarding institutions, or the ideas of "agonal" dimensions of war.

Secondly, we need to talk about issue of conflict and exploitation as a by-product of the lenient and/or inherently asymmetrical cooperative systems, which are often hard-to-police. This will be explored in chapter dedicated to conflict and exploitation.

Finally, we will move towards a particularly difficult subject – conflict or competition between value judgement *of individual cooperative systems or levels*, and the (mostly comparative) necessity to make evaluation, and thus *moral calls* on what cooperative strategies are worth adapting or preserving. This level, explored in a chapters 2.5 and 2.6, hopefully gives us some way to tackle the issue that in the plurality of existing possible cooperative strategies, judgements calls about priorities that should be ascribed to some over other are inevitably going to be a problem.

Finally, in a very short chapter, we want to address a thankfully hopefully infrequent, but all the more worrisome situation of *total cooperative collapse*.

Competition and conflict as part of cooperative strategies

Firstly, as our quote from Margaret Mead in the early parts of this paper suggested: Cooperation and competition, and even cooperation and conflict, are absolutely, by no means, contradictory notions. In fact, cooperation and competition are in most areas of human behavior tied particularly strongly together.

Margaret Mead presents us with an interesting example: The Maori tradition of competition in bird snatching activities. According to her account, the Maori strongly encourage competitive spirit within this discipline, rewarding the most successful snatcher with praise and prestige. But when it comes to the actual division of the spoils, the

competition is casted aside, and all hunters are being rewarded equally, with the “winner” not being provided with an actual extra provisions (Mead, 2003). This behavior illustrates well how competition can be nested within a deeper network of cooperation.

But we can come up with a far simpler and more relatable example of this: Sports.

Sports are inherently a cooperative venture. In modern western society, actually an exceptionally complex and intricate system of cooperation. All players cooperate by complying with the rules, all teams cooperate by complying with the decisions of the referees and with the often abstract and arbitrary scoring and ranking systems involved in larger sport events, which often requires direct participation of major institutions such as various sports associations, committees, clubs etc. They cooperate with the occasional ceremonial rules. They cooperate with their managers, who cooperate with larger economic or political conglomerates that fund the teams, they comply with health and safety regulation, they (mostly) comply with laws and rules regarding use of certain performance boosting substances, and so on and so forth.

Yet sport is also, by its definition, a fundamentally competitive endeavor. The teams or individuals are there to compete and prove their own superiority at the discipline. It's a competition: *enabled and facilitated entirely* through complex systems of cooperation. The role of the athlete at hand is to engage with both the cooperative and the competitive systems at the same time. There is even a word for a pattern of behavior that denotes particular strong displays of respect for the cooperative dimension of a competition: the word “sportsmanship”. Or “being a good sport about it.”

Despite its profoundly competitive nature (and the fact that the thrill of competition is what most people are interested in seeing in a sports match), the most virtuous, cooperative behavior is still being held up (at least nominally) as the most valuable element of the whole interaction.

Similarly, it is hard to look away from the fact that even most cooperative strategies and clusters based around meritocratic selection for prominence are – in fact – cooperative in a way that is directly written in the nature and rules of cooperation itself. Moving beyond sports: “meritocratic” selection models such as evaluation of students within educative

system and competition that brings into action, the concepts of a free market and competition of companies and brands (within what is seen as agreed up – thus cooperative – laws and customs of fair business or political practices), competition of people signing up for the same job position, even matchmaking services all involve in some degree or form, some levels of competitive and even conflict-enabling components.

What we need to understand is that cooperation is not a way to avoid competition (or even conflict), but rather to regulate it in such a fashion that it still results in a non-zero-sum game. Or at the very least, does not spiral out of control, causing extensive harm, and potentially endangering more trust and more underlying cooperative systems down the river.

We can go further to track cooperative systems even in major, violent conflicts, which will usually have underlying cooperative systems they are nested within. Fascinating accounts presented by studies of violent brawl between football hooligans presented by Leeson, Smith, & Snow (2012) or van Ham, Adang, Ferwerda, Doreleijers, & Blokland (2020) study in depths the degree of cooperation, involving not only compliance with unwritten rules of engagement, but mass-scale cooperation and logistical planning in which both groups are engaged: all in order to beat the hell out of each other. The (unofficial, yet highly important) regulatory systems may reach as far as requiring all members wanting to join in a planned brawl to be subjected to personal search for potentially banned weapons (to ensure that violence, which *is the point of the meeting*, does not escalate beyond what is considered still safe and long-term sustainable model), ostracization of members who violate the unwritten code of conduct, even displays of solidarity between the warring factions when a particularly egregious breach of the “hooligan customs” happen.

Even further on the notion of what the Greeks have been defining as *Agonal War* (Sabin, Wees, & Whitby, 2007), a war that despite its fundamentally violent nature, was governed by sets of written or unwritten laws that both sides largely respected. This idea of agonality of war extends far beyond the classic antique periods, into relatively modern concepts like military Armistice declared on symbolically significant dates, agreements on construction of humanitarian cordons and accommodation for presence of humanitarian or external observer presence, or for the purpose of collections and exchange of wounded and dead bodies: agonal dimensions of war, though especially lately not enforced to a degree we

would like to see, are historical element of even most of modern day military conflicts. After all, the ideas of such institutions as the Geneva Conventions are still continuation of this very idea: that even *in war*, some form of cooperation – a set of rules and restrictions both parts agree to uphold.

This is not to say that all conflict and all competition are always nested in underlying cooperative structures. Violence and hostility – of individuals or entire nations – can escalate to a point where any form of cooperation becomes impossible. I will however posit, that these are culturally speaking, exceptions, rather than the norm. And while those need their very special, unique approach of study, and they do have a tendency to attract exceptional attention (a good example of this could be the cases of various war crimes against humanity, school mass shootings, sadists rampages etc.), they account for the minority of actual daily conflicts and competitions in our cultural history. It is also worth mentioning that the unusual impact such types of actions leave on general public, may be explained *precisely* because of our (often unconscious, but always present) assumptions and trusts in degrees of cooperativeness being present at all levels of society. We rarely pay heed to the amount of cooperation we are daily involved in: but we are endlessly unnerved when it suddenly, briefly, fails us.

The final point I wish to make in this part of the discussion, is that in understanding much (if not most) of human competitive and conflict behavior, it is important to actually pay attention to the underlying cooperation first. Because that is the actual, true bedrock upon which most of conflict and competition mostly happens. Where we were taught to look for conflict, for power and dominance by authors (Foucault & Gordon, 1980; Kurtz, 2006; Said, 2008; Spivak, 2003; Wolf, 1990) as constitutional forces of social structuration, in reality I believe we can actually discover most of these cases are in fact, nested and deeply regulated by underlying cooperation strategies. Without understanding the systems of cooperation still present, or in the rare, but most disturbing cases, identifying where the cooperation failed, is integral to even beginning to study the role their more conflict-manifesting dimensions merge. After all – even the most rabid proponents of conflict theories such as the above mentioned ignore the insane complexity, intricacy and good will involved in cooperative nature of academic systems systems that allow them to study, teach, publish, and be recognized for their own work.

Cooperation and Exploitation

At this point, argument may have already formed in heads of the readers:

“But what about cheaters? What about those who steal, who defraud, those who abuse and misuse trust. What about criminals and demagogic or warmongering politicians?”

Exploitation and cheating have been a central concern of existing theories of cooperation from the very start. In fact, the possibility of so called “free-riders”, individuals who reap the benefits of a cooperative system, but refuse to invest in it, was for the longest time seen as the biggest obstacle in evolutionary explanation of development of cooperation. It’s what Robert Boyd called “The Puzzle of Human Cooperation.” (Robert Boyd & Richerson, 2005).

There are few things that need to be realized before we engage with the subject of exploitation and abuse in social systems. Firstly, it is necessary to distinguish between **exploitation** within a cooperative system, and **collapse of cooperation** all together. The former is unfortunately, without doubt fairly common, but for reasons I’ll explain later, not quite as worrisome as we may think. The latter, the actual collapse of cooperation, is rare, but generally tends to have incredibly far reaching, and deeply disturbing consequences. I will dedicate a short chapter to collapse of cooperation at the end of this part of the paper.

As for exploitation, once again several things need to be acknowledged. Firstly, that exploitation within a cooperative behavior (such as cheating, stealing, etc...) is still *part of the cooperation process*, even if generally an undesired one. Understanding anti-social behavior is only possible with previous understanding of what sociality really *is*. Secondly, due to the nature of asymmetry present in most forms of cooperation, and the issue of incommensurability of values invested and gained within an asymmetrical cooperative behavior, there is always going to be a very blurry line between where we can determine something as “merely inefficient or unreliable” cooperation, and where we draw the line of actual exploitation. In fact, as we’ll see, this line may at times be established entirely arbitrarily.

Exploitative behavior in cooperation, “free-riding” as it sometime called, has one interesting dimension that seems to go unappreciated in authors, who are trying to solve this

issue (R. Boyd et al., 2003; Robert Boyd & Richerson, 2005; Fowler, 2005). And that is the fact that such forms of exploitation are only viable and advantageous as long as they remain in a minority. The advantage gained from cheating a cooperative system heavily depends on that system being present and considered reliable. Because of that, there is a hidden impetus even for cheaters and exploiters, to participate and stabilizing the cooperative behavior, and only limiting the degree of disruption or exploitation to a degree which does not endanger the whole stability of the system. To put it in layman's words: A thief can be profitable only as long as shopkeepers trust their customers and don't a priori treat them as thieves. With radical destabilization of a cooperative system comes a decrease of opportunities to exploit it. This fact, alongside of what Boyd and Fowler identify as "altruistic punishment", may be the key factors through which cooperative systems seem to develop their surprising evolutionary robustness.

This should bridge us nicely into the next chapter.

Chapter 2.5 Evaluating cooperation: birth of Morality

Here we are coming to one of the most difficult, and most problematic parts of this paper. Up until now, we have been mostly trying to keep to a strictly academic, hopefully still mostly anthropological (or anthropology-relevant) point of view.

Now, we need to briefly discuss a subject that is outside of our field's realm of normal competence. An issue that could be entrusted – and only then, barely – maybe to philosophers of ethics. The issue of judging of what is and isn't right. **Evaluating cooperation or it's outcomes, is the definition of an act of moral judgement.**

We have outlined what cooperation is, and we have provided some solid explanations of how it came to be. We have already briefly touched upon just how broad and wide it actually is, how it informs our existence on every level, from basic communication, to child-rearing, to law, existence of state. How it permeates even conflicts and competitive behavior. It's the foundation of our trust in people, in institutions, in money, in politeness, in shared moral goals, in education.

The question that may have been on the reader's mind since the beginning of this paper needs to be addressed:

Am I saying that cooperation is good? Am I saying that trust is a virtue in and off itself?

The first glance at the definition of cooperation, with which I opened this paper, suggest that it is indeed so. I've defined cooperation as a form of interaction that yields a non-zero-sum result. That it helps us expand our resources, our opportunities, that it increases our fitness – as individuals and maybe (as Boyd would argue), as entire civilizations.

But unfortunately... the answer is not going to be that simple. In fact, the question itself may be fundamentally ill-posed. Cooperation, like competition, like superstition, like religion, like the existence of fiction, is a *universal fact* of human nature, one (as we hopefully illustrated) likely deeply rooted in our evolutionary past. And as all these *facts of nature*, attempting to ascribe a value judgement to it may prove difficult, if not futile. The evaluation of the *existence* of cooperation will require a slight digression.

Cumulative aspect of culture

Like many people somewhat versed in history of social theories of the 19th and early 20th century, I am weary of the idea of cultural evolutionism. I find great difficulty trusting claims that our society is following some form of straight line from “worse” to “better”.

Yet, there is much to be said about the fact that there is at least a degree a cumulative, qualitative progression. I don't think it's fair to completely discount arguments made by people like Leslie White (White, 2007) or Steven Pinker (Pinker, 2011). There is an undeniable path of growth, from a niche species struggling to survive at numbers between 10 000 and 1 000 adult members after the Toba catastrophe (Ambrose, 1998; Robock et al., 2009) to a species that has conquered every single biome and ecological niche in the world, conquered countless deadly diseases, developed means to travel deep into our solar system, the ability to change entire ecosystems at whim and supports a 7 billion people worth of population.

And I will argue here, that all of this is entirely a result of our cooperative nature. The cumulative aspect of our social and cultural evolution, the gradual increase in technology, tools usage, the capacity to harness more and more sources of energy as White would argue, the capacity to facilitate great density of population, all of this is a product of that ability to create surplus value, that fundamentally *non-zero-sum* nature of our biologically rooted, pro-

social and cooperative behavior. Our culture, and all that is worth acknowledging about *progressivist* theory of human culture, stands on the back of cooperation.

And from that point of view, unless we subscribe to radical anti-humanistic philosophies, cooperation does seem like a *good thing*. It certainly paves the door to proliferation and socio-technological development of our species.

Cooperation is neither good nor bad: but its individual forms may be judged as such

Creating a moral judgement of an evolutionary pattern is a fundamental abuse of the concept. A moral judgement is, at its core, a judgement of priorities among a list of hypothetical alternatives states. To argue that *human life is sacred* is to really say: out of the many ways to treat human life, to treat it as if it has inherent, unalienable value, is preferable to other alternatives (such as to treat it as disposable, or to treat it dependent on some additional factor (such as race, gender etc.).

To understand the relationship between cooperation and moral judgement, we need to first and foremost acknowledge the sheer plurality of possible cooperative strategies. This becomes particularly apparent when it comes to asymmetrical forms of cooperation. Let us remind ourselves that these include (though are by no means limited to): cooperation between teachers and students, citizens and governments, customers and service providers, patients and doctors, and in most societies, husbands and wives. What cooperatively focused perspective teaches us is that all of those are indeed *cooperation's*, functional models of relationships that serve the purpose of creating a non-zero-sum outcome. But at the same time, it allows us to appreciate the vast plurality of how each of these relationships may manifest, and allows for a degree of more informed comparisons. It will also lead us to an unfortunate, but unavoidable realization: which is that not all cooperative strategies are equally efficient, or compatible. Clash of different cooperative strategies can result in serious, profound social discord. I will dedicate an entire chapter to this issue bellow.

Furthermore, while all societies are built on cooperation, not all venues of cooperation will be open between individual social groups. Once again, we have to stress out that cooperation cannot be fully understood as an abstract universal notion, but rather, *needs to be studied* always in context-sensitive manner.

The evaluation of cooperation – **Moral Judgement** – comes into play in the form of establishing preferences or priorities of some cooperative strategies to other ones. This realization does not ease the burden of making a moral standpoint, but it does provide us with some additional tools to build it upon. Once we realize that what we are judging are cooperative ventures, once we appreciate the subject of asymmetry and incommensurability involved, we can begin helping ourselves by providing reasoning based on matters of such things as efficiency of particular cooperative model, compared to other known, existing alternatives. Social institutions – from marriage and gender roles past civil duties to customer service – can be broken down into factors of investments and returns, interests and identification of non-zero-sum gain of the process. This should help by freeing us of certain a priori biases, relying on more pragmatic and experience-based criteria of evaluation, and most importantly, acknowledges the fact that social institutions (no matter how unaware the subjects in them are), are *inherently mutualistic, and need to be seen as such*.

Dealing with Free-riding: Collective Responsibility

Unlike passing a moral judgement of an individual system of cooperation, individual abuse of trust by deviating from existing cooperative agreements is generally much easier to judge. Cheating, stealing, assault, fraud etc. are explicit attempts at opportunistic gain from the reliability of the system without having to conform to its expected investments or limitations. Being typically described as “freeriding”, this pattern of behavior is almost universally penalized by the institutional safeguards of the system, as well as something that R. Boyd et al., (2003) call “altruistic punishment”. We have mentioned this term a few times now, but now may be a good time to reiterate what does that concept entail.

“Altruistic punishment” is a pattern of behavior in which individual goes out of his way to punish anti-social or non-cooperative behavior even when he is not being affected by it. This effectively means that an individual is investing (or at least risking) resources into punishing non-cooperative individuals without it having any direct gain from that action (Boyd et al., 2003; Fowler, 2005; Hölldobler & Wilson, 2017). To illustrate this phenomenon: An individual may decide to report a theft – or even straight up confront a thief – when he sees him stealing from a complete stranger.

The reluctance to just “look away from evil doing”, the (as Tomasello argues in *Why We Cooperate*, 2009) *innate* comprehension of fair or acceptable behavior is the protoplasm from which institutionalized cooperation, and with that, shared moral value systems, emerges.

To continue our discussion from chapter 2.5, it is important that abuse of trust and attempts at free-riding, while unfortunately an inherent if unwanted part of any cooperative system, are interesting in that their own efficacy is heavily tied to the efficacy of the cooperation strategies themselves, and thus cannot be seen as a process entirely separate from cooperation. To study it, and to evaluate its nature, we first need to identify the relevant factors in the original cooperative strategy that is being exploited, as well as the related strategies or institutions that serve as a basis of the preferred altruistic punishment pattern.

Chapter 2.6 Incompatibility of existing cooperative models

So far, we have briefly talked about several numbers of potential discord or disharmony in relation to cooperative systems. We mentioned the subject of competition being deliberately facilitated as *part of cooperative strategies* (such as controlled competition of sport or political, economic and academic playing fields) as well as the risks of exploitation within a cooperative system (“cheating” or “freeriding”). There is however another potential source of discord in relation to cooperation we have not mentioned in any detail yet.

Let us preface this segment by some conclusions that cooperative-conscious paradigm provides us when it comes to the subject of cultural variety and complexity. We have heavily suggested that cooperation is fundamentally tied to evolutionary aspect of human existence, being at its core a form of adaptative set of strategies, allowing to anticipate, or quickly alter our survival strategies in response to variety of potential new environmental challenges or changes. The sheer width of different environmental and subsistence niches that humanity has managed to occupy speaks to how flexible and efficient this adaptative tool has proven to be. Plurality of possible cooperative strategies, which in our view significantly corresponds to the plurality of cultures and cultural patterns is logically explained by the congruence of evolutionary logic which dictates/demands plurality of survival strategies, is a decent enough explanation for what we social anthropology has labeled as “cultural diversity”.

And the acknowledgement that each of these culture-or-group cooperative and general behavior/belief systems is not a result of a linear, universal qualitative transformation (from primitive to advanced, from “bad” to “good”), but rather needs to be seen as a result of unique optimization path, prompted by pragmatic demands of each environmental or subsistence niche, resulting in the immense challenge and potential risks of qualitative judgement in comparing different broader cooperative cluster strategies, is what we broadly mean when we talk about “cultural relativism”.

However, this plurality does result in a hard to deny issue: Which is that some cooperation strategies might be incompatible, or straight up contradictory to each other.

The potential existence of mutually incompatible cooperative strategies results in a rather extensive area of new potential source of conflicts and discord, particularly when two or more groups accustomed to widely different cooperative strategies and priorities, are compelled or forced to either share living space, or be both integrated into a larger, overarching social unit, such as a state.

The incompatibility of cooperative strategies between different groups of people are in fact what we commonly understand by the vague term “cultural conflict” (or as Huntington (2003) rather ill-advisedly calls it, “Clashes of civilizations”). The sentiment behind this idea is the realization that if there are plurality of cooperative strategies in the world, there will be inevitable conflicts (or incompatibilities) between different cooperative strategies addressing similar areas of life. This subject is especially relevant in contemporary historical context, when we are facing the great new challenges imposed on us by increased population mobility, mass economic and long-term residence-oriented migration, and renewed attention to intra-state ethnic group identities and their concerns and demands for greater attention or integration. In recent decades, we have also attempted to “import” western political and state models into foreign countries (such as the attempts to “modernize” nations by military interventions in the Middle East). Questions are being raised about still persistent ideology of “multicultural” social ideas, while we see rising areas of conflict between “cultural” subgroups and their role and agency within institutionalized states (such as the rise of the BLM movement, LGBT+ interest groups, conflicts surrounding controversial depictions related to

Islamic beliefs etc). All of that results in increasing awareness of incompatibility between existing cooperative strategies, and has the potential to fuel intolerance and social discord.

The actually existing debate on the subject we shall tentatively call “culture conflict” is staggering and unfortunately, not always transparent. It is not within our capacity to even begin mapping the existing amount of literature on the subject in this chapter, as it alone would call for more extensive research than the entirety of this paper allows. However, I still consider it important to touch upon it, and at least some selected works, as it is important to clear out some potential misunderstanding about what the subject of cooperation can offer to us.

In his *Antropologie příbuzenství*, (2010) Jaroslav Skupnik makes multiple notes towards issues that Americans encountered within their attempts to reinstate more democratic social order during their invasions in Iraq and Afghanistan. Skupnik attributes these issues to the lack of realization that within pre-existing social orders of those countries, systems of wide-kin (and at times fictional kin) focused cooperation have been existing for many generations. His notes illustrate one of the more iconic forms of cooperation-model incompatibility: Kin-preferential models of cooperation often clash with models of cooperation based on individual’s political decision-making based on what is accepted as signs of competence based on various forms of meritocratic ideals that at least nominally define modern democratic state ideals. Countries such as US attempted to “import” these modern democratic ideals into its middle-eastern areas of interest without consideration of the importance of the kin-based cooperative strategies for local populace, and seemed to encounter fundamental difficulties for it. Similar sentiments and conclusions can also be found (though conceptualized through widely different perspectives) in following texts: (Harris & International Institute for Democracy and Electoral Assistance, 2003; Hu & Lee, 2018; Kamrava, 2007; Sadiki, 2009).

Many problems related to integration of migrant or ethnic minorities, that became widely discussed especially after the migration crisis culminating around the year 2015 can be understood in similar terms. Integration of populations that have dramatically different habits of cooperation, such as prioritizing closer ties to religious, kin or ethnic-based groups, will logically result in a conflict when expected to be integrated into societies with different sets

and standards of expected cooperation strategies that may privilege civic and secular institutions instead. Different degree of emphasis on smaller, usually kin-based units (and their unfortunate cousins, ethno-racial identities) as well as fundamental disagreements about the priorities of cooperative with civic secular state vs. old cooperative traditions built around authority and trust rooted in institutions representing religious or ideological views, seems to be in particular often repeated examples of cooperative strategy competition and disharmony, driving wedges of mistrust between neighboring groups of members of culturally diverse societies. Different views on the nature of cooperation between kin group and broader state institution, about cooperation between members of different genders, about the value of freedom of expression, are all oft-cited examples of this issue. Gońda, Pachocka, & Podgórska, (2021) offer an especially extensive overview of this subject.

Incompatibility of several different cooperative strategy-systems moderating similar area of human activity within culturally diverse units is the aspect of human history that seems most likely driving people towards a conflict-based rather than cooperation-based intuitions about the nature of social organization.

But this is also exactly one of the cases where once again, both the academic narratives of power and marginalization, cultural determinism, as well as the highly unfortunate folk beliefs in pseudo-scientific “racial, cultural or ethnic determinisms⁷”, all equally fail to both account for the complexity of the situation, and fail to provide us with constructive way of focusing our attention and analyzing potential options of mitigation of these intro-social conflicts. Both culturalist, and naïve pseudo biologist accounts simply fail to acknowledge both the roles, and the importance of building up new means of cooperation, by representing them as strongly determinist, and inherently only addressable by terminology of conflict and power-application to be solved.

Consciousness of participating on a cooperative model is as stated early into this paper, ***does not preclude cooperative behavior***. However, consciousness of participating on a cooperative behavior model does empower or equip us to actively participate in the process

⁷ By which we mean mostly folk-rooted beliefs of naïve cultural or pseudo-scientific ethno/racial theories, but also some of the more academically presented theories including the aforementioned reductionism of Huntington’s “Clash of Civilizations”.

of optimization of the cooperative behavior. And deeper understanding of the contested cooperative strategies allows us to develop tools for both understanding, and non-force based adjustment of it for the purpose of its optimization. We will examine this more extensively in chapter 3, where we will more specifically address the problem with vocabulary of power and conflict. For now, I will however re-iterate:

Cooperation is an adaptative dimension of both psychological, social and evolutionary reality of human species. Adaptive strategies of cooperation are inherently pluralistic in potential results, iterative from a diachronic perspective, functional (non-zero sum result oriented) and mutualistic at any and every point of their application (each of these points should be argued in respective sections of chapters 1 and 2). Any and all of these aspects may not be conscious within the process of practicing the behavior, but are always factoring in how the cooperative strategy actually impacts our social existence.

To effectively understand issues that are arising from mutually exclusive cooperative strategies existing in an environment pressuring re-establishing of a new, shared cooperative models, we have to acknowledge the fundamentally agency-and-function oriented nature of this situation, see individual participants (be it individual people or larger groups sharing the same cooperative habitus) as cooperation-capable and even cooperation-seeking, and approach the situation as essentially, meta-cooperative subject. Examining agency and arguments for each actor justifying their particular strategy, with a goal-oriented emphasis on means of evaluation that can help us create priorities needed to help us establish new (or renew old) cooperative strategies, are the only way to face these kinds of serious social challenges. Models based on power, historically or culturally deterministic arguments, essentialism employed in identity-forming rhetoric's⁸, empty ideals of multi-cultural self-solution of the issue, or arguments based on self-declared principles of historical determinism and past historical/moral obligations are not going to be sufficient or informative enough for

⁸ Essentialism is unfortunately common not only in rhetoric's of racial determinism of pseudo-scientific racism, but are equally as integral in the language of many modern left-leaning identity-politics interest groups. Reduction of individuals to their historical group roles (of victims or oppressors) which we can see in language of organization like BLM is just as essentialist as the arguments of the opposing side of the spectrum. Using criteria such as sexual orientations as inherent marker of an identity group engaged in a form of power struggle, as is done by rhetoric's of numerous LGBT+ activist group, is a good example. It involves reduction of individual to a simple, essentialist identity marker.

us to draw analysis or conclusions needed to bring forward a new or re-adjusted rules and institutional tools to harmonize social order.

Conflict of contradictory pre-existing cooperative strategies can, once again, not be fully understood if they are removed from the context of cooperation as the fundamental component of the social matrix. Any form of deviation from the function-oriented dimension of pro-social behavior will restrict our ability to make informed and functional policy decisions. Competing or incomparable cooperative strategies are nothing more than yet another reminder that our cooperative strategies need to be constantly iterated upon and optimized with regards to their most relevant and defining features: mutuality, innate capacity for adaptation towards pro-social behavior, and an underlying functional orientation towards an agreeable state of non-zero-sum conclusion of the social order. Denial or refusal of acceptance of compromise necessary for cooperation to be established, whenever argued for by historical grievances and related demands of ignoring functional and mutualistic role of all involved participants, naïve belief in self-solving nature of multicultural ideology, all mislead us to a path of social theory based on misapprehension of society as being governed by power. Be it historical and cultural determinism, or cultural and quasi-scientific assumptions about inherent properties of individual participants (based on their race, ethnicity or history), all of these outlooks do not equip us towards a lasting, stable, self-optimizing possibilities of social organization.

In conclusion, conflict of contradictory cooperative strategies is not evidence for conflict-based social dynamic, but an open invitation to apply the full advantages of cooperation-conscious outlooks.

Chapter 2.7 Collapse of cooperation

As we outlined above, it is important to distinguish between inefficiency, disharmony or exploitation within existing cooperative systems (cheating, opportunism, abuse of trust), and between a complete collapse of cooperation all together. True collapse of cooperation is a relatively rare sight, thankfully, but when it happens, it tends to leave exceptionally harsh mark. Acts such as mass school or club shooting, acts commonly known crimes against humanity, ethnic cleansings, escalation of war into a “total” state, many (but not all) forms of

terrorism, are all examples of what happens, when the underlying, often unconscious safety net of cooperation disappears entirely.

Cooperation collapse needs to be distinguished from limited cooperation withdrawal. Where is in cooperative withdrawal, one may choose to not cooperate on particular subject with another object due to their refusal to engage in the same activity, and can be at time useful tool to encourage re-engagement in negotiation, is not a collapse of cooperation, but rather a tool used to enforce re-negotiation of cooperative strategies once again.

An actual collapse of cooperation involves complete disconnection of ALL cooperative assumptions down to the most general and broadly accepted ones. The rejection to continue and participate on *all* cooperative social systems displayed by Eric Harris and Dylan Klebold during the notorious Columbine Shooting of 1999 is a perfect example of where no possible common ground, and no possible venue of negotiation, marked by explicit and stated refusal of both perpetrators to even begin considering their targets as human (and thus cooperation-capable) beings, as detailed in their rather terrifying writing (*The Journals of Dylan Klebold and Eric Harris*, 2019). This, alongside unfortunately many other events of similar *utter* rejection of any level of cooperative common ground, can serve as an illustration of what a collapse of cooperation, a state in which our most basic (and often unconscious trust) in at least some level of cooperative behavior being always available, is shaken to its deepest core.

The profoundly disturbing nature of such events stands as a testament of how much we (even without realizing) fear and can barely even begin to comprehend what world truly without cooperation would be like. The overlooked, forgotten, but always present safety net, the unrealized, but psychologically immensely important trust in at least base-level of cooperation, only truly becomes clear to us when we face the conditions in which it disappears completely. It's only in face of such absurd situations, that we see what collapse of cooperation truly is.

Chapter 3 Cooperation-Conscious Paradigm

Chapter 3.1 Taking a lesson: Cooperation-consciousness as a social paradigm

Finally, we are closing on what is the true intended goal of this paper. To propose and evaluate a new (or altered) paradigm for study of socio-cultural phenomena: to propose a way to study society in a cooperation-conscious way. This is a proposition that I hope could have potentially useful implications for our existing social theories and practices. And while our initial formulation will be broad and vague, I hope to provide some more specific examples of how cooperation-consciousness can change and enrich our understanding of previously studied subjects – in this paper, I will specifically demonstrate its potential on the typically anthropological subject of **kinship studies**, and more linguistic oriented **analysis of politeness**.

The cooperation-conscious paradigm of social sciences is in many ways modeled as a response to the currently heavily dominant conflict theory based paradigms, most of which have their roots in works of the members of the Frankfurt School of sociology (Adorno, 2009; Horkheimer, Adorno, & Schmid Noerr, 2002; Marcuse, 1986), as well as related authors from fields such as post-colonial studies (Said, 2008; Spivak, 2003), gender studies (Beauvoir, Capisto-Borde, & Malovany-Chevallier, 2011; Dworkin, 1993; Randolph et al., 2019; Sheivari, 2014; West & Zimmerman, 1987), critical race theory (Delgado & Stefancic, 2012), as well as the entirety of Foucauldian school of thought (Foucault, 2002, 2005; Foucault & Gordon, 1980 and others).

Our hope is that cooperation-conscious perspective not only overcomes hurdles and outdated notions of conflict theories (which are, let's be completely honest, rooted in the purest rationalism and naïve evolutionism of late 19th century), and give us a perspective that respects both a sociobiological, and actually non-deterministic image of a human being.

As such, I wish to define certain integral ideas that a cooperation-conscious paradigm entails.

Pillars of cooperation-conscious paradigm

1. Drawing on the extensive library of research on evolution psychology and mathematical models of cooperation, and in particular on experimental research performed by Tomasello, (2009), we posit that humans are **inherently predisposed towards cooperative behavior**, and that such cooperative focus has shaped our ancient and modern history. As such, we wish to define cooperation-conscious paradigm as *humanistic*, drawing from the idea of inherent value of human existence directly drawn from our capacity to cooperate, and thus participate on the non-zero-sum game of our culture.
2. We also posit that human cooperation and resulting vast array of strategies and institutions is **functional** in nature, and should be seen in that light. We strongly oppose the idea of reducing instructional systems to the reductive language of power and oppression, as these fail us to provide with sufficiently three-dimensional outlook on their function and nature.
3. We believe social studies need to re-acknowledge mutuality and coexisting agency of all participants in a system. **We strongly oppose the idea of cultural or historical determinism**, as it is a means to deprive individual members of society of their true agency. Even inefficient and imbalanced forms of cooperation are still results of people cooperating: not merely a result of one group dominating over another.
4. We wish to re-introduce and re-conceptualize **arbitrariness** as a pivotal element of social construction of reality, by re-acknowledging its *functional* role in social coordination. In contrast to Foucauldian construction of reality through impersonal, historic *intentions of power and language* (Foucault & Gordon, 1980), we believe the impetus for construction of social reality comes from the actual social participants and their acts of optimizing their shared collective strategies: with arbitrariness (of meaning, of institution, of classes and categories) as both a process and result.
5. We wish to begin re-analyzing what holds our societies together, before we make rushed judgements about what may be dividing it. We need to understand structures of mutualism and deepest layers of cooperative co-existence to better understand, more impartially describe, and evaluate various pressing social phenomena.
6. Finally, we wish to highlight the true, profound danger of the areas where cooperation begins to *actually fail*, (be it due to co-existence of mutually

contradictory patterns of cooperation, or a case of a particularly short-sighted, anti-social judgements of individuals or groups) and to warn against belief systems that attempt to normalize such behavior.

The core of cooperation-conscious paradigm is an impetus to change the rhetoric and with it, related hidden biases and implicit assumptions of contemporary social science, or at least to enrich them via new vocabulary, with that, new forms of perspective. I specifically wish to phase out conceptualization of human social structures based on one-dimensional and non-mutualistic concept of *power*, with a more nuanced spectrum of balance, mutualism and distribution of outcomes inherent to asymmetrical cooperation. I propose to approach social institutions and even individual interactions from a perspective that respects the innate propensity to be social, and view social disharmony as a result of imbalances or inefficiencies of cooperative strategies that may require optimization of the process, rather than approaching them from a perspective of radical victim and oppressor blaming.

In order to incorporate the cooperation-conscious paradigm into our understanding of social reality, we need to embrace new terminological/analytical tools applied to isolate, analyze, relate or synthesize our knowledge of social phenomena. Key steps in its applications are:

Ability to identify cooperative patterns or cooperative clusters.

By clusters, I mean systems where multiple levels of cooperation happen simultaneously, and are interlocked in such a way that each directly influences each other. Cooperation rarely happens in isolation, but rather usually takes place as a multilayered system.

Let's consider the basic example I have mentioned before: A simple act of purchasing a bottle of alcoholic beverage in your average convenience store. This simple, and for some of us daily task, actually consists of cooperation cluster so extensive that we are often barely even conscious of its many faucets. Let's break it down into several constitutive levels.

The first one is a cooperation between the customer and the clerk. Here we immediately see several new levels, on which cooperative actions take place: On linguistic level, where we choose and adjust language or other channels of communication for mutual

understanding. On a basic customs level (in supermarkets, we don't expect the cashier to fetch good for us, in a small colonial store, we don't climb over the counter to fetch the goods ourselves, we don't haggle for prices in regular stores etc.).

Then there is the action of the actual exchange – where we cooperate by trying to not scam the cashier, and vice versa. This however, actually bring us to a whole new level of cooperation, because it is important to note that this exchange in itself is not usually an exchange between us and the cashier, but rather with the store as an institution. In the process of exchanging the goods and money, the cashier is usually a mediator. Which brings us to another layer of cooperation – on the level of customer expectations, rights, guarantees, price negotiation with the distributors or producers of the goods. And that all actually drags us even further, to another level of cooperation – with region, or state or global level legal institutions: banks that prop up the currency we use, laws that regulate alcohol sales, police that intervenes or mediates potential conflicts or misunderstandings, and so on and so forth.

An act as simple, as basic as buying yourself a beer in Czech Republic, is thus a node-action in a massive cluster of cooperative strategies. Identifying this fact, and being able to start untangling and isolating individual layers of cooperation involved, is the first step in application of cooperation-conscious understanding of social phenomena.

Mapping, isolation and breakdown of cooperative actions

Once we became able to identify a particular cooperative action or cluster, we can start mapping it out. This means

1) Identifying co-dependencies of individual cooperative connections or levels of cooperation, and isolating levels or sublevels where possible or necessary.

2) Identifying participants and roles within these connections.

3) Identifying forms of symmetry and engagement (including identifying actual or model forms of investment or involvement of each participant or institution)

4) capturing the functional dimension of the cooperation (e.g., tracking down where does the non-zero-sum part of the process emerge).

It is very important to understand that all of these should be ideally further analyzed on two separate levels:

Perceptual level: how the participant in the cooperation perceives or conceptualizes his role, his investment, his gain and his belief about the function of the cooperation.

Pragmatic level, which is the degree from which we can evaluate, describe or quantify these factors on an “objective” (that is, external-observer based) basis.

This dual level analysis is integral to our proposition, as it is the discrepancy between how people cooperate, and how they see themselves and the cooperation, that may yield some of the most relevant and new social data, allowing us to analyze contexts of dissatisfaction, deliberate obfuscation’s, poor communication and other factors that may hold back, hinder, or straight up completely recontextualize studied cooperative relationships.

Evaluation of cooperation: Value neutral and value charged

Once we have mapped and broken down a particular form of cooperative behavior into its constitutive elements (participants, investments, function) as well as perceptual side of the problem, we can approach (with great care and caution) evaluation of the cooperative system. There are, broadly speaking, two levels of such evaluation that can be done. The first level is fully within anthropologists’ line of duty and responsibility, and consists of pragmatic (“value-neutral”) evaluation of studied social phenomenon, with focus on the subjects of efficiency, stability, disposability, the degrees of consciousness, volition and dependency. This level of evaluation is at its roots descriptive, aimed to answer questions of “how and why” people do what they do.

The other one is more questionable. It’s a level of evaluation on a moral scale, a value-charged evaluation. That would be the judgement of whenever there are better or worse ways of doing cooperation.

I have no delusions about lack of biases inherent to all people, social studies scholars included. In reality, the two levels of evaluation are going to be hard (if not impossible), to entirely separate. Our moral and pragmatic sensibilities (and biases, and ideologies) are interconnected and ever-present. However, I wish to encourage self-reflection and discipline,

and at least *theoretical* adherence to separation of these two levels of evaluation: to treat their separation as an ideal worth pursuing, even we cannot achieve it at 100%. I will also state this:

Evaluation of cooperative behavior should be, as much as it is possible, done on a comparative basis. Too often I see people both common and academician eager to dismiss existing models of cooperative behavior without having evidence or proof of existing, more desirable model. Let us not ever forget that social institutions and systems of social life (e.g., our cooperative strategies) have evolved for a functional reason, and as inefficient or distasteful as we might find them, there is very likely a dimension of benefit they provide, which we might be too eager to overlook. In cooperation-conscious paradigm, identifying the hidden, obfuscated benefits of existing social models is paramount. This process also once again revalidates the necessity of cultural relativism as a tool of maintaining ability to provide value-neutral apprehension of the studied subject. Our proposition for cooperation-conscious paradigm is precisely one that lets us understand humans and their sociability to its deepest functional, and evolution-informed levels, but this ambition comes with the inherent and vital acknowledgement of the plurality of possible manifestations of cooperative behavior. It is my hope that cooperation-conscious paradigm is not understood as reductionist – even (in fact because) of its strong ties to biological and evolutionary theories of human nature.

Questioning the Language: Foucault applied on Foucault

The arguably biggest ambition I have with this paper, is to suggest a system reevaluation of language used with social studies. We now have access to several fundamental realizations about the nature of human sociability and communicativeness. The role of language being more than just a communication channel, but rather fundamental filter of our comprehension, an active element of social construction of reality has been well acknowledged (Foucault, 2005; Foucault & Gordon, 1980; Said, 2008; Spivak, 2003). Realization (or to be more restrained, suggestion) that language (and in particular, categorical terms) directly inform our behavior has a long history, drawing all the way back to the famous Sapir-Whorf hypothesis, and is known as either weak, or strong linguistic determinism, with the weaker forms of linguistic determinism being more-or-less accepted to be self-evident truth in all of the above-mentioned authors. This is also largely congruent with Wittgenstein's language games theory (Wittgenstein et al., 1993) and even resonates within Steven Pinker's

Language Instinct (Pinker, 2000) and Imai and Kanasugi's Language and Cognition (Imai & Kanasugi, 2017), who offer a far more neuro-cognitive and psychological perspective on this subject.

But at the same time, we are now aware that language itself is governed by arbitration, a social and cooperative process in and off itself. This results in a situation in which it seems logical to see both cooperation and social arbitration, and the deterministic dimensions of language, forming a mutual feedback loop, each informing and adjusting one and another. The process of arbitration (both of linguistic, and social elements) allows us to adjust the language to the concurrent needs of our evolutionary situation, while the language's deterministic impact on individuals helps to stabilize and reinforce cognitive and social institutions to ensure disarray, miscommunication and failures in cooperative endeavors. Unlike Foucaultian philosophy suggests, accepting the role of arbitrariness being a social process and shared, cooperative responsibility teaches us that we are not really, as Foucault says, "prisoners of our own history".

So far, these claims are by no means revolutionary or surprising. Once again, the explanation of just how important language/conceptualization is on formation and transformation of society has been the gist of most contemporary sociological literature, namely the mentioned works of Foucault. What I am here to suggest however, is that much of concurrent existing vocabulary of social phenomena (and the resulting conceptualizations), particularly those used in social studies, may be either incomplete, or misleading, and deserve a revision. What I am suggesting here, is basically to use Foucault's critical review of language and conceptualization on post-Foucauldian social studies, and enhance or enrich it by our current available understanding of cooperation.

To do this thoroughly is, unfortunately, outside of the scope of this paper. But for now, let us say that concepts such as "power", "marginalization", "oppression", "privilege", and even the very concept of "Other" can all be broken down into far more complex and more situation-aware terminology.

How much does our ability to understand social reality expand when we replace the concept of "power" with a concept of "significantly asymmetrical cooperation", and begin to

analyze it in terms of investment, functionality of the cooperation, individual perceptions and satisfactions, and comparative analysis of alternate cooperative strategies? How does our understanding of intra-social group expand when we see them not as “marginalized and privileged”, but rather as participants on a mutualistic relationship and ask for reasons for their specific involvement, their individual investments, finally seek possible means to optimize this *mutualistic* relationship?

The vocabulary of conflict-oriented theories is – much like the vocabulary of Enlightenment states, self-fulfilling prophecy. Hygienist rhetoric’s of 18th century being merely replaced by different, but equally arbitrary, and equally mental-map-altering rhetoric’s of Critical Theory. It is worrisome how after the profound lessons about the impact and importance of our linguistic grasp on reality, provided to us by authors ranging from Foucault to Orwell, no form of actual skepticism towards new generations of social theory vocabularies seem to manifest. Instead, a remarkably opportunistic mentality of enforcing these new, yet still profoundly 18th century rooted paradigms had seemed to develop. I do not think anywhere else can this be illustrated better than on the apprehension of the concept of Power, utilized across vast swaths of social theory.

Examining the Vocabulary of Power

In his paper *Political Power and Government: Negating Anthropomorphised State*, Donald Kurtz (Kurtz, 2006) offers a brief overview of the history of the concept of power. Drawing primarily on definition provided by Weber in his *Theory of Social and Economic Organization* (Weber, Henderson, & Parsons, 2012, originally 1947) and the works of Eric Wolf (Wolf, 1990, 1999), Kurtz arrives at a fairly simple baseline definition of “power”:

“Power is the ability of one agent A to “bend agent B to his will or force him to do things against B’s interest.”

The fundamental problems of this definition, and the very concept, seem to me glaringly obvious. Firstly, it is based on an assumption of absolutely one-sided relationship. Again, the biases towards a pseudo-Darwinist outlook of “success/survival of the strongest” are strongly on display. As a result, it functionally completely eliminates agency of B from the equation, as well as reduces any possibility of the functional dimension of this relationship

beyond A's clear gain and B's clear loss. There is little space for any ambiguity or complexity in this conceptualization of what is, a social change process. It's an isolated event of competition, in which A is winning and B loses. This is, according to Kurtz who adopts this rhetoric's not only from Weber but also from Marx, because A has simply access to pragmatic means of power – tools of force (means of production, nebulous notions of “power” and authority), while B does not. B is a non-entity here, whose entire position is reduced to the fact that he has been victimized.

And this may serve as a perfect illustration of where cooperation-conscious perspective may offer a vastly different and more nuanced representation of the events and processes involved. Even in Kurtz's example – manifestation of power within state institution – neither A nor B stand outside an intricate system of cooperation and co-dependencies. The position of B – even if it may be strongly asymmetrical to the position of A, is not one deprived of any agency, and his both factual, and perceptual views of A are not insignificant in this scenario.

The reality of the model situation presented by Kurtz can be translated, in line with our cooperation-conscious perspective, into a more complex situation. A manages to successfully convince B to join in cooperative relationship that is asymmetrical and may be heavily skewed against B's interest. To apply cooperation-conscious paradigm, the questions need to be asked about how and why B decided to comply with A's terms of cooperation. Which requires us to know priorities and interests (e.g., *agency*) of B to understand the full extent of what happened. Is B aware of the poor optimization of his relationship to A? Does he consider the imbalance of the cooperative venture as high or low on his own list of priorities, or are there other levels of cooperation involved he might consider higher priorities? B might agree to be “bend or forced” because he might have greater interest in maintaining broader cooperative engagement with the whole institution of state, which he may seem as more relevant to his survival. He might not perceive the alteration of the conditions of his cooperation with A disadvantageous at all. Or he might have “trust reserves” large enough to accept this potentially risky form of cooperation still worth it. And, most importantly, B might not be educated in the fact that he does indeed have agency to begin with. After all: that is precisely what authors such as Kurtz, Wolf or Foucault are trying to preach here in the first place: not only they do not acknowledge the relationship as

mutualistic, but they actively try to convince their audiences (including many B's) that their agency is irrelevant or non-existent.

To put it simply: B is not without agency in this interaction, and the interaction is not one-sided. We might identify it as a sub-optimal way of handling and mediating cooperation. We might find it even downright detestable. We might want to start making inquiries into the broader cluster of cooperation's that allowed for such an inefficient asymmetrical relationship to emerge: the role of legal systems, conventions, information-distribution, and so on. Every step of this cooperation, as well as every element that played role in its facilitation, should be examined, and might be justifiably questioned. We might still want to seek way to avoid such scenarios for the future.

But we can't reduce the nature of relationship of A to B, and both A and B to broader network of social institution and further agents to "application of power". We have to first and foremost understand the nature of codependency of individual elements, their quantitative means, but also their perceptual side of the experience, and above everything else, we have to discover the functional direction of the interaction – we have to see what both sides see as the ultimate benefit of their cooperation. Even compliance (which we defined as non-action), is not an act of non-agency, and that agency is tied to the perceived or real non-zero sum result relative to non-compliance.

For an example, one may (and unfortunately frequently does) accept a poorly optimized, asymmetrical and skewed cooperation with corrupt government as once again: one perceives that still preferable to complete lawlessness (e.g., complete collapse of cooperation). People choose to cooperate or comply with suboptimal cooperative conditions because they still generally tend to intuitively realize that even skewed and sub-optimal cooperation is preferable to lack of any cooperation what so ever.

Those people are not just being subjected to power. They actively manifest their own agency, and their own desire for cooperation, they are still seeking what they perceive as the most optimal strategy of cooperation available. And this realization should be acknowledged, in fact deeply embedded in the most basal intuitions we have about the nature of most forms of social order.

To employ rhetoric's of cooperation-conscious paradigm is to make two key steps in changing our linguistic and thus conceptual view of social reality.

One is to avoid pre-determining roles of victims and victors, rhetoric's of power and oppression, a pseudo-Darwinist⁹ view of social nature, that was once forced upon social studies by authors such as Karl Marx (Marx, Engels, & Marx, 1998). Instead, it is a way to conceptualize the vast bulk of human society as both a structural system, and a system of agency of each individual member. Aside from offering a more neutral, and more detailed view on social relationships, it hopefully also can help educate people about their own agency within the system, as well as the necessity to engage in negotiation and willingness to compromise, rather than stripping them of their own role and presenting them as *victims* or *products* of social history. Viewing people (and teaching them to view themselves) as active participants on what is at core a goal of a non-zero-sum game is to me, both more accurate and detailed, and more empowering view of society. An agent in cooperation, no matter how inefficient or skewed against his interests it may be, is more empowered than a victim or a product of power, status, identity or other "historical or cultural determinants", relying entirely on a sanctimonious third party to intervene with a pretense of representing their interest, while actually stripping them of agency in the first place. Because as we stated in our opening chapter – cooperation always takes at least two people, both of which matter, and are active agents within it, even when they are temporarily not conscious of this fact.

The other is acknowledging the constructive, and shared, active role of arbitrariness in the process of social construction of reality. Arbitrariness, the social guarantor of meaning of all social and linguistic concepts, a non-trivial and highly useful process, is once again a product of constructive, cooperative endeavor, a functional dimension of social knowledge that is in itself both influenced by agency of the public, and self-regulating and optimizing through the process of iterative nature of communication and the selective process that Dan Sperber so aptly named *Relevance Theory* (Sperber & Wilson, 2001).

⁹ Pseudo-Darwinism here stands for the widely believed, but fundamentally wrong assumption that in natural and evolutionary world, the vital rule is "the survival of the strongest", and the assumption naturally flowing from that belief that human behaviour is inherently selfish, seeking to empower itself at the cost of others whenever there is an opportunity.

It deserves to say at this point that I'm well aware the concepts such as power are not always used in as one-sided and fatalistic fashion as in the definition provided by Kurtz. It is not within the possibility (or intent) of this paper to provide a comprehensive guide to entire practice of conflict-and-power focused discourse, as this alone would make for a work that would exceed the already bloated dimensions of our works. But I will say that even among the more careful and less one-sided practices of using power-based paradigms, there is still a tangible problem of hidden emotional bias and generally bleak, deterministic and antagonizing implications hidden in the terms alone.

Power by definition can be countered, restrained, fought against, perhaps in some most idealistic outlooks negotiated with or for. However, it still primes the readers towards an antagonistic and fatalistic view of social networks.

Acknowledging cooperation being the center of social structuration not only removes those implications, but also opens new subjects that can be introduced, and teaches us about the important (and worrisome) reality of its alternative: Collapse of cooperation. It inherently implies the need to optimize social systems to mutual benefits, invokes the concepts and importance of compromises. Finally, it empowers us with one more vital thought: Our right and agency to choose whom to cooperate with.

Again, in line with the subject of empowerment, understanding social relationships as cooperative inherently contains the necessity to be willing to compromise, and the necessity to always be willing to make sacrifices, and shows us that if there is no equal good will on the other side, maybe cooperation must be withdrawn.

Chapter 3.2 Bringing Cooperation-Awareness to Selected Social-Studies Practices

Above we proposed more general implications of embracing cooperative-conscious paradigm and lexicon relative to our currently existing common discursive tendencies. Much of this work was inspired by frustration over the essentially anti-social paradigm many contemporary social doctrines seem to rely on.

In the following two chapters, I wish to try do something different. I hope to provide more concrete examples of how cooperation-consciousness can change or enrich our

understanding of previous studied and well-established social phenomena on a more ground-level. I believe that other than changing the broad conceptual and terminological basis of our social studies discourse, I also believe the outlook can change our deeper understanding of certain social phenomena, that have been studied in the past to what really seems to be a just a very limited success. The first subject will directly hearken back to my BC graduation thesis: (Vranovský, 2020) – the subject of the mysterious and “fallen” concept of Kinship. I believe that the very shift of our perspective to a cooperation-conscious one may change our understanding of the core nature of the problem. The second subject will be more bordering on the world of verge of anthropology and linguistics, as I will attempt to apply the same logic to tackle the subject of Politeness, which has been so far treated as more of a linguistic than anthropological consideration.

Chapter 3.3 Kinship Once Again

The discussion surrounding the (non?)existence, nature and role of Kinship within the field of anthropology has been long and arduous one. What was once considered the very *core* of anthropological discipline, (Lévi-Strauss & Needham, 1969; Morgan, 1871; Rivers, Firth, & Schneider, 2004; Skupnik, 2010), was declared entirely dead by 1970's (Needham, 1971; Schneider, 2004 originally 1971), then declared deliberately murdered (Sousa, 2003), and now exists in state of limbo and confused self-contradiction (see the disparities among accounts between: Feinberg, 2003; Read, 2007; Read & Guindi, 2013; M. D. Sahlins, 2013; Shenk & Mattison, 2011).

I do not wish to recount the whole history of the conflict-and-contradiction riddled debate about nature of kinship, as I have already touched upon it in greater detail in my BC thesis (Vranovský, 2020), so here I will limit myself to identifying the two core problems that have been always at the heart of kinship disputes and debates. These two problems are

- 1) The incongruence between many (if not most) existing cultural kinship models, and biological reality of genetic proximity.
- 2) The lack of *essential* property (criterion) of kinship that would allow for universal definition of the phenomenon.

I have argued in my BC thesis that the second problem, the problem of lack of *essential* criterion or property of kinship, that was primarily argued by the executioner of kinship studies, David Schneider (Schneider, 2004; 1980), is actually an artificial one, stemming from arrogance of some social anthropologists (Schneider in particular) and their inability to both question their own, ethnocentric essentialist assumptions, and their refusal to cooperate with other, deeply related fields (in this case, the mathematical *Theory of Categories*, the *Cognitive Linguistics* and biological and medical theories of taxonomies). All of these disciplines, as well multiple individuals involved in philosophy of language (namely Wittgenstein, (1993, originally published in 1922) and Vygotskij, (1981, first published in 1932, first translated into English in 1962) have actually already solved the issue.

The first problem, however, proves to be more enduring and relevant. Throughout the existence of kinship studies, anthropologists have been consistently amazed with the variety and flexibility of existing cultural conceptualizations of kinship, many of which seem to utterly disregard our contemporary, biologically informed notions about genetical relatedness.

To provide my personal favorite example, as documented by Lebra (1998), it is for an instance entirely possible that within Japanese kinship terminology, an individual may refer to his female cousin as “older sister” (*onee-san*), while he also refers to a *younger* cousin as “aunt” (*oba-san*), all of this while Japanese kinship terminology has and commonly uses an equivalent term for cousin, (*itoko*). This odd use of kin terminology is allowed by a number of other interfering or participating factors, such as marriage status of individual participants in the system.

Or, in a more famous example, the so called “Iroquez” class of kinship systems, recorded among Haudenosaunee, Anishinaabe or Bantu-speaking societies (Morgan, 1871; Skupnik, 2010), strictly distinguish between so called “cross” and “parallel” cousins, these being based on gender-opposition of the parent and his siblings that connect the cousin to the Ego. That is to say: children of my father’s brother and my mother’s sister (“parallel” cousins) are put into strictly different class than children of my father’s sister or my mother’s brother (“cross” cousins). This distinction is not merely terminological, but plays a vital role in enforcement of incest taboo and prescriptive marriage strategies, where one group is usually *strictly forbidden* to marry (or have any sexual relationships at all), while the other group is

often *preferential as marriage group* (Lévi-Strauss & Needham, 1969; Skupnik, 2010). All of this despite the fact that as Hamilton (1964) and Wilson (1975) point out, from a genetical standpoint, both of these groups share exactly the same degree of biological and genetical relatedness to the Ego.

And in the most extreme cases, of so called radical matrilinearity and patrilinearity (in particular in so called *avuncular* systems, identified among others among Khazakh, Tsonga and Nama cultures), any form of actual consubstantial relationship between a child and one of his parents may be categorically denied all together (Skupnik, 2010).

This clear divorce between many existing cultural kinship models, and basic understanding of biological relatedness, is undeniable. At the same time though, it is worth mentioning one fact, which is that no matter how divorced from genetical relatedness they may be, the concepts of kinship (e.g. the idea of existence of some form of consubstantial group delimited from other members of the society, which has some form of direct tie into a question of reproduction, parental and sibling relationships), *do exist* in every single known society (Feinberg, 2003; D. Read, 2007; D. Read & Guindi, 2013; Skupnik, 2010).

I believe the answer to this “mystery”, the way to bridge the gap between the biological nature of relatedness and cultural concepts of kinship, is actually relatively simple, once we embrace the base assumption of a cooperative-conscious point of view.

Kinship terminology does not serve the purpose of mapping genetical or genealogical ties. But it isn't just an inexplicable oddity of cultural existence either.

Like every other classificatory system though, kinship is *arbitrary*. This is why authors such as Schneider fail to find its “essential” properties. Rather than a universal or essential property, kinship is a result of a function-oriented iterative social modeling and optimization, followed by conventionalization.

Under the perspective of Cooperation-Conscious paradigm, kinship terminology exists and serves as a *guide to close-circle cooperation strategies and priorities*. To identify one as a kin member is to identify which pattern of cooperation are you supposed to apply. This explains both the universality of kinship (as close-circle cooperation, especially one that

involves parental and sibling relationships, exists in every society), it's overlaps, but also its deviations from biological relatedness. The plurality of possible kinship conceptualizations reflects the plurality of possible cooperative strategies that can be employed, while it's undeniable tie to reproduction and genetical proximity is explained by the simple fact that kin-cooperation is always, to a degree, evolutionary advantageous.

To understand kinship as a map of mutual, often asymmetrical, unique cooperative strategies developed against evolutionary background where kin altruism was beneficial, but not to a degree of overpowering other survival strategies, greatly enhances our understanding of it, both in traditional, and modern societies. Development of kinship models becomes an adaptive strategy, allowing unprecedented degrees of flexibility to integrate, recontextualize and alter human biological and reproductive nature in response to unique environmental challenges. Genetical proximity may be an objective, natural fact, but the specific nature of cooperation between genetically related or unrelated members of the society can be (and in fact, given the incredible range of environments and niches humanity learned to occupy, *has to be*) flexible. It is a result of interaction of base evolutionary rules with extended adaptative strategies of cooperation.

With this simple realization, with this simple application of the awareness of the concept of "cooperation", we can suddenly see that the divorce between biological and cultural kin systems is not only compatible with, but actually a logical necessity of our biological nature. At the same time, it becomes glaringly obvious why use of fictive kinship (symbolic adoptions etc...), and kinship as a metaphor (religious statements such as "we are all brothers and sisters"), enjoy such a wide popularity in common discourse. The cultural kinship map is flexible and variable *by nature and necessity*, as it teaches us how to *treat others*, rather than anything else. To study kinship is (among other things) to study the history of integration of smaller and older cooperative groups into wider and newer ones, and to explore the amazing plurality of cooperation in action.

Empowered with this realization, we also can now begin to better understand numerous other, kin related phenomena. The subjects of nepotism, of kin-based governmental corruption, of various cases of failures of implementations of modern

governmental systems, is to study clashes and intersections within cooperative clusters, contradictions between (sometimes mutually exclusive) cooperative strategies.

It is fair to point out, once again, and this outlook on kinship, the view of kinship neither as a form of classification nor as a folk-biological reinterpretation of biology of relatedness, but rather as a utility for establishing social cooperative and co-dependency strategies, is not new. It is the stance originally presented by Claude Lévi-Strauss, in his alliance theory of kinship (Lévi-Strauss & Needham, 1969), first published all the way back in 1949. It has unfortunately since been somewhat forgotten.

Chapter 3.4 Politeness

The subject of politeness, despite its rather universal existence and importance in daily life across both traditional or modern societies, has not been explored by the field of social anthropology as much as I would like to see. Instead, the study of politeness has been mostly delegated to the fields of General Linguistics, and more specifically to its subdiscipline of *Pragmatics*. The biggest exception to this seems to be the publication titled *Questions and Politeness* (Goody, 1978), which is unfortunately not accessible to me at the time of this writing. Most other anthropologically or sociologically motivated inquiries into the subject, such as made by Barešová, (2008), Nwoye, (1992), Putri, Ermanto, Manaf, & Abdurahman, (2019) or Reiter, (2021)) all seem to just draw on existing linguistic accounts, and in particular, on the so called “Face” theory of Politeness, proposed and popularized by Brown & Levinson, (1987).

So, within this chapter of the thesis, I would like to set up two goals: The first one is to move the subject of politeness closer to anthropological point of view, and second, I would like to illustrate the usefulness of cooperative-conscious paradigm in its explanation.

Defining Politeness

By politeness, we mean specific alterations in human communication and communicative conduct, delimited from “common speech” by a set of semi-formalized rules and restrictions, and usually reserved for so called “formal” interactions. (Brown & Levinson, 1987; Eelen, 2001; Goody, 1978). While the specific rules of polite conduct vary dramatically from culture to culture, there are some universal principles that can be traced

down. These include: use of hedge phrases¹⁰, indirect requests and tag questions¹¹, increased emphasis on pronunciation and hyper-correctness of grammar (Brown & Levinson, 1987; Lakoff, 1973), use of narrowed, often more energy-costly vocabulary, avoidance of vulgarism, sociolects or ergots, depersonalization etc. (Brown & Levinson, 1987). Another aspect of polite communication, in my opinion greatly under-appreciated in existing studies, is alteration of body language, such as can be seen in polite conduct of East Asian societies (“formal” stance or sedentary positions, nodding and bowing, rules of eye contact etc...).

Politeness Theories

Within the field of pragmatics, politeness has been studied from multiple angles. It is beyond the scope of this paper to introduce the whole history and overview the existing theories of politeness in depth, but I shall provide some basic introduction.

In her book *Critique of Politeness Theories*, Gino Eelen, (2001) identifies nine major theories of politeness, as they formed over the last half a century. Let us take a quick glance over them: Robin Lakoff’s *conflict-mitigation focused* theory (Lakoff, 1973), Penelope Brown / Steven Levinson’s (particularly influential) *Face* theory (Brown & Levinson, 1987), Geoffrey Leech’s *Interpersonal Rhetoric adjustment* theory (Leech, 1983), Yueguo Gu *external expectation* theory (Gu, 1990), Ide Sachiko’s *role communication* theory (Ide, 1989) Shoshan Blum-Kulka’s *cultural convention* theory (Blum-Kulka et al., 1989), Bruce Fraser / William Nolen *contract* theory (Fraser, 1990; Fraser & Nolen, 1981) Horst Arndt and Richard Janney’s *appropriacy-based* approach (Arndt & Janney, 1985), and perhaps most importantly, Richard Watt’s *politic behavior* theory (Watts, 1992, 2003, 2011; Watts, Ide, & Ehlich, 2005).

I will however dispute this list somewhat, by pointing out that Watt’s *Political Behavior* and Robin Lakoff’s later variation on her *Conflict Mitigation* theories are in fact becoming one and the same, as can be demonstrated on Robin Lakoff’s later works, namely *Talking Power: Politics of Language* (Lakoff, 1990) *Language and Woman’s Place* (Lakoff & Bucholtz, 2004) or a book aptly called *Language War* (Lakoff, 2000).

¹⁰ Softening phrases like “it appears like” rather than “it is”.

¹¹ Tag questions involve inclusion of phrases like “You would not mind if I...?”

Of these nine theories, Brown and Levinson's *Face* theory seems to be enjoying the most popularity by a landslide (Barešová, 2008; Eelen, 2001; Goody, 1978; Nwoye, 1992; Reiter, 2021), followed by Lakoff's *conflict mitigation* and Richard Watt's *political behavior* (Eelen, 2001). The reasons for this may be related to a strong specific cultural bias present in most other theories (Ide Sachiko's *role communication* shows strong bias towards Japanese role-and-place social structuration corresponding to analysis of Japanese society by Nakane Chie (Nakane, 2008), Yueguo Go's *external expectation* theory displays strong influences of Confucian state-vs-individual outlooks, while Farser and Nolen's *contract* theory shows an unmistakable and direct influence of British school of *Social Contract* philosophy tradition, following the footsteps of Hobbes and Locke.

Lakoff, Watt, Brown and Levinson seem to offer more culturally universalist outlooks. For the reasons of their rather dominant position within the discourse, I want to briefly explain these theories, before providing a critique and an alternative outlook.

Robin Lakoff's original version of her conflict mitigation theory and politeness maxims provide us with a relatively simple answer to the purpose of polite speech: it exists to prevent or soften potential conflict among the speakers. Tools usually employed by polite speech (indirect or tag questions, hedges, etc...) simply serve to soften or weaken the speaker's own declarations of agency, thus mitigating the potential conflict of opinions or beliefs (Lakoff, 1973) and accommodating the partner.

However, as mentioned above, in her later works, Robin Lakoff switches her views and aligns herself with Robert Watt's *political behavior* outlooks. This theory also isn't particularly complicated to explain, as it is nothing else but application conflict and power focused *critical theory* to yet another aspect of our daily lives. Human interaction is perceived here as an identity and class based power struggle, with politeness being yet another weapon through which one group overpowers and oppresses or suppresses the other (Lakoff, 1990, 2000; Lakoff & Bucholtz, 2004; Watts, 1992, 2003, 2011).

Brown and Levinson's *Face* theory of politeness is, as mentioned, most popular and most frequently invoked, and also most intricate of these theories. It's based on a strongly psychological grounding. Brown and Levinson seem to focus mainly on the individual and his

specific needs, identifying two main and *universal* human desires, each represented as one of the two types of “face”. One is the desire for attention and admiration (*positive face*), the other is a desire for personal freedom and dislike for being pushed or manipulated by others (*negative face*). (Brown & Levinson, 1987). According to Brown and Levinson, politeness is a result of the inherent conflict within these two aspects of human personality: we wish to maintain strong positive face, but by that, we encroach on our partners desire to maintain their negative face – and simultaneously, our partner in communication wishes to reinforce their positive face, which however threatens our negative one.

Politeness in communication thus represents a way to mitigate or regulate this inherent source of tension or conflict, creating a form of manageable “tug-of-war” situation, in which the two communicating partners are trying to actively acknowledge each other’s faces and find work-arounds to the tension – imposing their positive and negative faces in more indirect and refined ways upon each other, and using the formalized means of polite conversation as anchoring points for this strange interpersonal dance (Brown & Levinson, 1987).

Polite refutation of politeness theories

I will state at this point, with all respect to the above-mentioned authors, that I find all of these theories of politeness incredibly lacking. I do not want to go into detail why I find explaining any form of human communication as an exclusive matter of conflict, power and dominance, as suggested by Watt and later works of Lakoff, as I think I’ve discussed that sufficiently in chapter 3.1.

The *Face* theory of politeness perhaps deserves a more detailed criticism. Firstly, I find the generalizing notion of universality of human desires (for acceptance, and for freedom) as presented by Brown and Levinson, to be fundamentally questionable, as they do not seem to actually focus on specific context of the interaction. While it is probably true that these desires exist within most individuals, I find the assumption that they are always the center points of interests of all people in all contexts within politeness is applied questionable to say the least. Formal public apologies of prominent public figures that I had the chance to observe in Japan, while profoundly and deeply saturated with highest degree of Japanese formal polite speech (specifically *kenjougo* – or “humble polite language”), hardly seemed as manifestation of

desire for acknowledgement while defending one's independence. In fact, the whole assumption of any universal actor's agencies in communication is to me, highly suspect. Actor agency will change and reflect immediate needs and contexts of the case of communication.

Second of all, *face* theory fails to account for both *functional* dimension of politeness, and the necessity to explain the existence of delimitation between polite and impolite speech to begin with. As both positive and negative faces are treated as universal and ever present human psychological absolutes, there seems to be lack of explanation for why we use the tools of politeness in only selected situations. The whole system subsequently lacks an important consideration, which is the mutual *transformative* and external *goal-oriented* nature of politeness as a phenomenon.

The lack of context or cultural awareness, as well as the assumption that humans are ultimately, always motivated by entirely self-serving and self-centered psychological desires, make *face theory of politeness* completely insufficient, especially when taken from a perspective of social studies.

If we want to build a more sociologically or anthropologically informed theory of politeness, we can't rely on any of the above present theories. Anthropology requires its explanations of polite behavior to be relatable to the subject of cultural diversity, while sociology requires a theory that accounts for subjects of social cohesion and structuration. *Power and political* theories of politeness fail to account for the former (plus they are straight up anti-humanistic), while the *face* theory fails to account for both. A different perspective is, in my opinion, necessary.

Politeness as Asymmetry and Cooperation-security issue

Much like with solving the "fall" of kinship, I believe cooperation-conscious view can help us understand politeness in much greater depth, and in a way that unites both linguistic, and social-studies focused perspective.

Let us for start consider the actual common contexts, in which polite conduct is being utilized. This is where our awareness of cooperation *asymmetry* becomes incredibly useful. I wish to remind the reader: typical examples of asymmetrical cooperative relationship include relationships such as one between a teacher and a student, a doctor and his patient, a rank-

and-file employee with his high-status supervisor, a believer and a priest, a defendant and a judge etc... And it is within these contexts, that politeness seems to manifest most commonly. There seem to be quite a direct correlation between the asymmetry of cooperation and use of polite conduct. While Watt and Lakoff would simply label these as “power inequalities”, I think it is at this point obvious why I believe such outlook is rather terrifyingly reductive.

There is also one specific occasion in which politeness is also applied outside of what is a clearly asymmetrical form of cooperation: and that is politeness towards *strangers*. This we can also define as politeness being used towards people we have limited or no reliable information about. I will touch upon that soon.

The strong correlation between asymmetrical cooperative contexts, as well as role of (lack) of information about partner in communication – and use of polite language leads me to a natural conclusion:

“Politeness is a formalized element of communication that informs, specifies or moderates the positions of participants of communication in consideration of further explicit, implicit, or potential cooperation through formalized or semi-formalized means of communication.”

To put it simply: we use polite speech whenever we need to make sure that all of us are conscious of our specific, unique and often asymmetrical positions within the cooperative network or cluster. It’s an acknowledgement of the asymmetries, that informs each side of our awareness (and thus readiness) to participate, or continue, this specific, unique form of cooperation. It lets our partners know our acceptance of the stakes and roles within that cooperation, and alters our conduct to ensure the process continues smoothly even if the asymmetry (or novelty) of our interaction has not yet been validated by presence of interpersonal trust bonds.

As mentioned, the one specific occasion of use of politeness – politeness towards strangers, further reinforces this theory. The use of politeness – a formalized mediator of cooperation – towards people we have limited knowledge about, allow us to communicate our willingness to facilitate *potential* cooperation, and a priori acknowledge the stranger as someone who is considered in our eyes a valuable potential cooperative partner, even if we

are unsure of how (or if ever) such further cooperation may happen. The lack of individualized trust (stemming from lack of information about the *stranger*) is mitigated by the use of formalized expressions of willingness to cooperate – in form of polite conduct.

The realization that politeness can be understood as formalized means to ensure further direct or potential willingness to continue cooperating also gives us a good explanation for why it exists in separation from an informal speech, and why, in fact, use of politeness in contexts where greater intimacy or equity between the participants is expected, can lead to confusion and even conflict. It is not uncommon that some people may see overt politeness towards peers or even friends as actually misplaced, if not straight up insulting. And that is explained very easily:

Among people who already have a stronger, intimate or equity-based relationship, direct individualized/selective interpersonal trust, or where another institution is mediating trust (such as kin ties, equitable working condition rules etc.) should be enough to guarantee cooperative behavior.

Use of formalized politeness systems (existing to express willingness to cooperate towards strangers or people in highly asymmetrical positions) towards peers, friends or close affiliates may be easily interpreted as a sign of lack of that interpersonal trust that should have been established already.

This explains why politeness can, at times, become such a double-edged sword, and despite its core nature being that of facilitating cooperation, it can be used (due to its contrast to reliance on interpersonal trust) even as a means to express mistrust or hostility. E.g., when a friend suddenly starts talking to us in a strangely formal, polite manner instead of the usual more intimate language, we will likely immediately assume some kind of problem has emerged within our friendship, and this is his way to communicating that he lost his personal trust in us (but still displays at least formal willingness to cooperate).

To sum this up: to understand politeness behavior as mediative or facilitating tool for expressing and ensuring willingness to participate in ongoing, future, or hypothetical cooperation even in strongly asymmetrical social conditions, we gain a tool that not only gives us a *functional* explanation for the phenomenon of politeness (the goal is to ensure continued

cooperation, and thus continued benefits from that cooperation, even under highly complex and asymmetrical social conditions), but also greater insight into some of its more niche properties. And finally, the plurality of existing cooperative strategies and patterns across societies allows us to explain the plurality among the specific manifestation of politeness and its rules across multiple societies.

In fact, once again, we can now analyze each individual case of polite conduct preformed in greater detail, just by further tying it to knowledge gained by use of cooperation-analytical tools outlined in previous chapters. Politeness strategies and customs of say – intra-company rules of conduct, now can be grappled from a much more situated point of view, as we can tie them to our analysis of the specific cooperative strategy of that company – their own strategies of investments, returns, negotiations, trust-reserves etc...

Chapter 3.5 Conclusions

I hope these two additional concrete examples have given the readers a better understanding of what cooperation-conscious paradigm of social phenomena can offer to other pre-existing fields of social inquiry. Not just as an alternative to existing vocabularies of conflict theories, but as a more profound shift in understanding social structuration and self-regulation itself, and even marrying previously contradictory biological and socio-cultural perspectives. The shift away from either individual-interest-only focused point of view, or from a view of cultural, power-and-conflict rooted determinism, can open entire new perspectives on existing social subjects, as well as educate people more extensively about their own agency and value within these systems.

My ambition to introduce, test and experiment with the so called “cooperation-conscious paradigm” is – as this text amply prove – still in its infancy. Our examples of its applications are highly limited selected, and involve a large number of unavoidable simplifications, reductions or vague notions. This whole paper, and chapters through 2.4 to 3.5 in particular are unavoidably just academic thought experiments, years if not decades before they can be put into coherent and system social practice. If they even ever withstand the unavoidable scrutiny and criticism. There are many criticism and potential weak points in the currently established line or argumentation.

But such is the nature of trying to thread (what I hope to be) some new grounds, or at least exploring some novel twists on older grounds. “Cooperative-conscious paradigm” is an idea that is still firmly in its infancy, and even I am not entirely sure if it even is viable. Making mistakes and errors is part of the process of hopefully developing it into a full-blown concept.

And the potential venues on which to test out this (hopefully) novel outlook in previous chapters are by no means exhausted (or meant to be exhaustive). Similar change of point of view allowing us to propose new, and multi-disciplinary-accessible approach can be applied to a number of other social phenomena, both new and anthropological classic mainstays. Culture of gift, gender roles, religion and it’s structuration, marriage and marriage strategies, childrearing and child-rearing strategies, formal and informal, local and broad governmental systems, games and play (ludology perspectives), law and it’s incredibly varied forms of manifestation and enforcement, professional specialization or tradition-based dominance hierarchies, role of trust and balancing of freedom and responsibility in private sexual and partnership life, internal organization of universities, private companies and governmental bodies, even subjects as contentious as ethnic and cultural/religious clashes. Subjects as small and specific as the Japanese hikikomori phenomenon (unusual and undesirable pattern of Japanese youth shutting themselves in and isolating themselves from most social and civic activities due to inability or unwillingness to bear the weight of the stress of strict social expectations in Japan (Ochiai, 1997, 2013) – to subjects as broad as international politics and law, and analysis of totalitarian regimes and ideologies, can all be reframed in the light of this point of view.

Final Conclusions

As mentioned several times throughout the paper, the ambition of this paper was to present a broad, general overview of the complexity and depth of the role cooperative behaviour plays in our lives, and the way to re-accentuate cooperation and a core perceptual (academic and analytic) standpoint for the theoretical and methodological tools of social studies. This goal has proven to be ill-fitted for the formal, technical and time-based restriction involved in a creation of a master's thesis. The image I have presented above as by no means complete and polished to the degree that I believe the subject deserves in the first place. A great deal of work – both in more detailed mapping out of the cooperation-consciousness paradigm and its relation to other existing social theories, more detailed methodological guidelines, and more examples of direct application of this point of view, are necessary to move this whole concept to a more acceptable and applicable level. The sheer extent of subject areas it potentially applies to, and the amount of polishing our arguments to better reflect the vastness of other existing social paradigms are an inherent bottleneck on my entire endeavour. I leave the final chapters of my paper with a bitter taste in my mouth, not by any means feeling secure in whenever I succeeded or failed to sufficiently build up my case.

Yet on the other hand, I believe this paper to hopefully have utility as a first introduction to the possible world of cooperation-focused studies. Whereas my work is nowhere near finished when it comes to strength of my arguments, and demonstrations of their utility, I do realize that the conceptual project I've started in this paper is one inherently demanding on-going, long-term effort, one that I am even now, worn down by writing 100+ pages of text over mere few weeks, starting to look forward to engage.

The ultimate goal of this paper has shifted over the course of writing it. From providing a comprehensive introduction, to providing a set of basic key considerations and illustration of its possible future utility of my "paradigm". The act of provoking a possible response and unavoidable criticisms that we can start addressing and accommodating in the future, became the actual most important purpose of this work can hope for.

As it stands, the paper does only contain the very baseline of our thoughts and propositions. To sum up the ultimate state of this paper and it's intended goals:

I have (hopefully) successfully demonstrated how our cooperation-conscious view is not built on a purely social speculative outlook, but actually has an acknowledgement of solid history of hard-science evidence: in Chapter 1.3 and 1.4 I attempted to prove that there is the extensive history of cooperation-focused studies provided by fields of evolutionary psychology, modernized forms of socio-biology, historical and physiological anthropology and archaeology that my central point can draw upon. The ability to re-establish dialogue with biologically inclined inquiries into human social existence is to me a critical step towards secularization of social studies and potential unity in goals and approaches. The realization that those outlooks can be much more compatible to our existing social sciences account than we may have led to believe, fortifies my trust in my approach, even if such confidence cannot be extended to my presentation of it within the confines of this paper.

I have also attempted to extend my social-studies proto-paradigm into other interdisciplinary areas, as in chapter 2.2 and 3.4, hopefully proving that not only our core tenants allow us to open discussion with biologically inclined disciplines, but further communicate and compliment views of other, social-reality related disciplines, namely those of General Linguistics and Semiotics departments.

In chapter 3.1 I have hoped to make the main goal of this experiment, the proposition of cooperative-conscious paradigm and some founding principles of it, clearer, and with that, at least some of the venues in which it could be further refined and applied. I have demonstrated the potential utility of this paradigm by applying it to two separate specific subjects: Kinship terminology and Politeness in communication.

I hope to have also provided at least the baseline of new terminology that could be of use for future explorers of this subject. Re-evaluating and expanding definitions and categorization tools are integral to prevent muddying of the waters of potential future academic discourse, which in my most optimistic dreams, this paper could at least somewhat provoke.

Ultimately, I have set up on myself to argue that cooperation is more integral and more important aspect of our life than we generally seem to acknowledge, and that there is potential utility of acknowledging this fact. In the process I wished to define or model how this realization could lead to a formulation of a paradigmatic and conceptual shift. I may have ended up sketching less than the outlines of for such an ambitious goal. But I will satisfy myself with the fact that every larger socio-cultural paradigm has to start somewhere. After all, in the spirit of this paper – it is impossible for one person, such as me, to truly achieve the goal I initially hoped to achieve. I have overlooked a key lesson I myself attempted to drill into the minds of the readers of this paper: that even I will ultimately need help. Much like I attempted to prove on previous pages: A goal of establishing a more functional cooperative-conscious paradigm will inevitably need *cooperation* of many other authors. Be it supporters or opponents (people whose cooperative role is to question my conclusions, and whose cooperation is just as integral to our shared endeavour as mine or as those who find themselves agreeing), a broader, wider network of cooperation has to be established for this – or any other similar theory – to be truly formed (or truly abandoned).

The road to future

At the very end of my paper, I feel like I've spent more time learning what will be needed to be done after this paper is completed, than about what needs to be done within the confines of the paper. I hope my engagement with this subject has only begun, and the work I've done so far is little more than a couple of founding stones. There are more subjects that require more re-examination than there are ones I find explored sufficiently. There are areas where the application of our outlook could be beneficial, then there one illustrated in this paper. There are more co-existing views, paradigms and theories that are left unaddressed, than there are ones we attempted to accommodate. There are more areas of argumentation that are tenuous at best than the ones I hope to have explored sufficiently.

To do so, I will need more time, and ideally, more people who find my propositions at least worth examining. To inspire a cooperative drive to perhaps extend and improve on the ideas. So ultimately, that may be the function of this paper. To inspire more people to consider this point of view – regardless if they will find themselves agreeing or disagreeing with its core assumptions.

It has become a cliché to end a paper with the suggestion that further studies are going to be required. But after all the events of the last half year, and the winding road this paper has taken, that really is perhaps the most important message I can hope to deliver with this piece of text.

Cooperation is here, and it forms every aspect of our daily existence, from the most minute-to minute ones, to the most global-situation changing political and social events. The ultimate goal I've set upon myself is to drive people to realize this, and make their own conclusions and decisions about what we will do with our ability to cooperate next.

I hope to have at least drawn the interest of the reader of this paper to this fact, and convinced him that this observation is not trivial and can, in fact, change our very understanding (and with that associated rhetoric's) of many, if not most commonly studied social phenomena. If this paper succeeds in raising interest in this claim, I will consider the two thousand hours of my work a resounding success.

With best regards and great gratitude to anyone who has read the work this far,

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