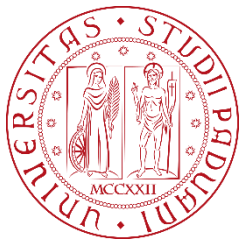

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Rationality Revised

Relatore:

Ch.mo Prof. Andrea Altobrando

Laureando:

Pagani Riccardo

Matricola n. 2091168

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INTRODUCTION

The human being is a rational animal. Let us assume this historical as well as contemporary statement, which has marked and still influences the comprehension of the human subject as a thinking and acting individual, as true. An individual who, in his moving in the world, logically seeks to carry out his living in the most effective way possible. We are animals who communicate, act, make decisions, reconsider our beliefs, study, invent, create, think. We are rational in all aspects of our lives, if by rational we assume our being efficient. It is precisely on the basis of these assumptions that the work done by this thesis moves. For it will start precisely from this, from the common conception of a rational agent as perceived by most, by ordinary people. Moreover, on several occasions this imprint of the 'taken for granted' will be used. In fact, the course we will take will deliberately show in an uncritical way certain conceptions and interpretations, in order to restore the feeling of a rationality that, as belonging to every subject, seems to be self-evident. All this is then to show its shadowy points and unveil a nuance that is not obvious. By doing so, we will be able to attempt to elucidate an assumption within a debate studded with assumptions.

A vast number of different and often conflicting interpretations clash with each other in an attempt to provide the most precise and effective definition of rationality, thus creating a magmatic contradictory environment referring to the same concept, but dressed in a thousand different masks. The work done by this thesis will therefore serve to cover a lack, namely that of being able to find, within the debate around the concept of rationality, a kind of map, which can reconnect

all the structural threads that weave the concept of rationality. This goal will be achieved precisely by starting from assumptions, as previously highlighted, which are those of the leading voices in the contemporary debate around agentivity and its rules, showing their connections and aspects that allow summarizing, in the noise of a sometimes too noisy debate, a core melody.

We will therefore highlight the essential and irrevocable aspects of rationality, its weaknesses and strengths, its main approaches and the conceptual revolutions that have led to its reconsideration. Structural elements and the practical correlation with our actions will also be highlighted, all in order to restore the cleanest and most harmonious image of rationality. That is, its inexorable dimension. The latter will find its explicitness in an instrumental interpretation that will raise a fundamental question, namely: Have we then actually arrived at the complete and final definition of rationality? The answer will not be long in coming, and on the basis of the latter, a reopening of the debate will be offered, a new and further reinterpretation of rationality and its fundamental need to relate to the world and the agents that are marked by it.

All this will follow a methodological approach that will go along with the conceptual movement of the thesis content. So, a rigorous progressive dialectical approach will be flanked by an openness toward questioning. Analytic and continental want to re-embrace each other in an attempt to provide an argumentation that is as logical and structured as possible yet gives breathing space to the necessary willingness to examine the subject and its reasons. This methodology thus finds its resolution in a division into five chapters that encapsulate the various stages of taking note of what rationality means today.

The first chapter will contextualize the initial conception of rationality from which the entire structure of the thesis will move. The canonical structure of a commonly understood rationality on the basis of common sense and subjects' experience of it will be highlighted. A rationality therefore biological and natural

that would characterize our being human as such. This will be followed by a critique with respect to this common assumption that will make it possible to highlight how the social-historical context constitutes an element of primary importance in order to frame rationality, its structure and its development. Thus resulting in the possibility of providing a general overview of the various conceptions that to date are concerned with rationality in philosophical terms.

Chapter two will go deeper into rationality itself, relating its intrinsic relationship to the concept of normativity in order to highlight the need to justify compliance with rationality on the basis of structural requirements capable of guaranteeing the logic of our actions and the operativeness of agent subjects. However, this approach inherent in the close relationship between rationality and normativity will highlight a number of elements of tension that will prove unresolvable, giving rise to a number of fundamental problems. It will be precisely on the basis of these problems that we will be able to point out an original consideration of rationality as the correctly responding to reasons by an acting subject.

In the third chapter, therefore, it will become necessary to investigate what is meant by 'reasons', and the radical distinction between epistemic and practical regarding them will be highlighted.

In chapter four, on the basis of the previously outlined distinction regarding reasons, it will be possible to highlight and justify the contemporary separation of rationality into two categories, again referring to the epistemic and the practical. On the basis of this distinction, two of the most famous theoretical innovations within the contemporary debate on rationality will be revealed, respectively that of Derek Parfit and that of John Broome. The latter will not only allow for a broadening of the understanding of the concept of rationality beyond the rigid canons previously outlined, but will also allow for an understanding of how, despite the theoretical breakthroughs and innovative interpretations

regarding how to understand rationality, there always seems to be an inescapable primitive element, namely the means-end relationship, that would characterize the essence of a rationality to be defined as inexorably instrumental.

The fifth and final chapter will delve into this apparent inexorability, describing what is meant by instrumental rationality and how it is intimately linked to decision theory. In the intimate relationship between decision and instrumentality we will be able to find the origin of the efficacy of this conception of rationality, but also, with the help of Robert Nozick, to highlight how it is not to be considered exhaustive. In fact, instrumental rationality fails to take into account a number of value elements that are to be considered fundamental in order to calculate the overall decision value that justifies our actions.

Thus the debate is reopened, and instrumental rationality is proposed to be joined by a fundamental symbolic element that, in addition to enhancing our conception of rationality, could help us separate from the mere calculation of the utility and reopen us to the social context in which we are all thrown.

1.RATIONALITY

1.1.The Human Being as a Rational Animal

What do we think of when we think about a rational person? What kind of traits should the latter possess in order to be defined as such? What, after all, is rationality? It seems almost immediate to create a mental image of an enlightened, capable, intelligent, stoic person; able to make the right decisions at the right time, with detachment and clarity of mind. From this faintly sketched image of a commonly understood rational agent, we might conclude that being rational is that intrinsic element which typifies human beings, elevating and enabling them to excel and prevail above other species. It is no coincidence that the great epochs of transition in the history of humanity have been traversed by a hectic inclination toward the pursuit of this seemingly exquisitely human feature. The Age of Enlightenment, positivism, and the techno-scientific revolution are just a few of the noteworthy major transformations that emphasized the role of rationality within society and helped to portray our subjectivity, our ability to communicate, and our mobility in the world. Was Aristotle right, then? Is it really a peculiar kind of *practical wisdom* (Aristotle, [Ross, and Brown] 2009), capable of enabling us to achieve our objectives as correctly and efficiently as possible through our ability to reason, the trait that identifies us? It would appear intuitive to provide a positive answer to this

question, but why? Perhaps because human beings are precisely constructed in such a manner and therefore it is part of our nature. The most immediate and elementary explanation seems to stem from a naturalistic point of view.

Human beings, as a species, have been subjected to lengthy and elaborate evolutionary processes that have made them the unique creature that they are today. Through environmental changes, the pursuit of fertile ecological niches, the seizing of opportunities and especially through the fundamental reproductive process with the genetic variations that the latter implies, rationality has emerged and stabilized, thus, as that essential advantageous requisite for the survival of the fittest. Rationality, therefore, considered and embedded within a drafted evolutionary perspective, comes to be described as a "biological adaptation with a function − and − since rationality is taking account of (and acting upon) reasons, what rationality is, what function it has, will depend upon a fact about the world, namely, what homeostatic mechanism(s) actually operated, and toward what goal, in shaping us to act and believe on the basis of reasons (Nozick 1995, p. 117, 118-120)[1].

Consequently, within a world that is continuously changing with its facts and events, humankind has learned to relate to them and determine, based on good reasons, which conduct to adopt in order to survive. Acting upon reasons, to be rational, the very act of reasoning reveals itself as the most suitable evolutionary mechanism for the purpose of achieving our goals (Brown 1978). Each of our deeds, therefore, is driven by a formal cognitive-intellectual mechanism that compels us, to a certain extent, to achieve our aims if those aims are really what we desire and if they are worth achieving; furthermore, to do so in the most appropriate way with respect to what we consider more advantageous − the whole by means of an appropriate, more or less defined,

[1] At page 118, Nozick provides an accurate description of what he means by function: Z is a function of X when Z is a consequence (effect, result, property) of X, and X's producing Z is itself the goal-state of some homeostatic mechanism M satisfying the Nagel analysis, and X was produced or is maintained by this homeostatic mechanism M (through its pursuit of the goal: X's producing Z).

deliberative[2] process. We move in the world through paradigmatic forms by which we try our best to achieve the most in regard to our survival.

It now becomes possible to better describe that sketched image of a rational person which we tried to mentally represent earlier by providing it with some more specific characteristics. A rational individual, according to common sense, must therefore be A) Reasonable and logical B) Consistent and coherent C) Emotionless and teleological (Zafirovski 2003).

a) The first pair seems to be the most intuitive of the three. Our behavior as rational beings must observe a precise framework of logical-cognitive procedures so that the decision-making process does not run up against fallacies and proves itself as reasonable as possible to third parties[3]. It is precisely at this level that an individual's knowledge and intelligence become most apparent. The ability to comprehend available facts, analyze them and organize them in the most efficient and non-contradictory way is what distinctively defines our being rational in pragmatic terms.

b) Another essential element is that of coherence-consistency which fundamentally supports the logical-rational process just described. Our being adapted to such a structure demands the presence of a necessary and rigorous coherence-consistency that ensure that the subject, in a situation already faced, will continue to comply with that same process that brought them to success − unless an opportunity arises to improve the previously achieved outcome in the

[2] The reference to deliberation is introduced here and will be further explored later. However, at this introductory stage, it is already possible to make the relevance of a cognitive process explicit, at the level of agentivity, which we call deliberative. Deliberation turns out to be fundamental because within the mechanism, defined here as natural or biological, which distinguishes the individual determined to achieve his ends in the most efficient way possible, it determines the set of cognitive steps necessary for the calculation and computation of relevant facts, their analysis and their value assignment, in order to determine the horizon of possible events and their outcomes.

[3] This is because the finding of the meaningfulness and reasonableness of our logical-cognitive process must be able to be validated by an evaluative element that is not simply the subjective one. In order to be sure of our correct rational being, comparison with the other turns out to be essential, and it is through the same comparison with third parties that the subject themselves can come to know the correct processes or evaluate the correctness of their own.

very same situation.

c) This brings us to the last pair of features. The prospect of a continuous enhancement of our deliberative process, choices and knowledge, implies the prospect of a rupture from our coherence in favour of an ultimate end. Being rational entails the ongoing tendency toward a teleology supported by a means-end relationship that guides our each and very judgement or choice. Furthermore, in order to be defined as virtuously rational, we must approach those judgements and choices through a state of drastic absence of emotions, since the latter might dull our clarity of mind and lead us in the wrong direction.

Upon reflection, however, it seems counterintuitive to consider ourselves intrinsically rational. If we were indeed rational by nature, how we could justify the Aristotelian commitment through that all-important cultivation of virtues, the Enlightenment's emphasis on the awakening of reason, and the modern necessity of scientific popularization? Above all, if humans were inherently rational beings from birth, how would it be possible for them not to infallibly match these fundamental characteristics? If rationality were genetically inscribed in our DNA, how would it be feasible to commit actions that appear illogical, incoherent, or simply irrational to us? The answer to this question seems to be as incoherent, especially if we consider what has been said so far.

This is because humankind does not inhabit only one nature, composed of its strictly organic and biological dimensions, but also contributes to the development of a *second nature*, to be understood as: "the development of uniquely human culture, with a wide variety of institutionalized human communities, effective human technics, richly symbolic languages, and carefully managed sources of nutriment" (Bookchin 1996, p. 119). By means of an irreversible and inevitable course of complexifications, what on the surface might have seemed to be a simple evolutionary genetic process becomes an increasingly tangled web of socially institutionalized norms. The reasons, logical procedures

and principles we adopt are influenced by a socio-cultural matrix that we contribute to construct, and that does not simply depend on some type of genetic variation. It is precisely this overall complexifying of initially purely biological elements that brings human individuals to have an elaborated agency and autonomy, which ultimately help to produce that complicated figure of the *self* that comes to be progressively characterized thanks to that concept of rationality we are trying to frame and describe.

The rational animal reveal itself to be a social animal, and it is precisely this social context that contributes to defining what rationality is. We are rational by nature, yes, but one of a very peculiar kind: a social nature. Along with a natural evolution, thus, comes a social evolution that at the same pace shapes and defines our rationality; a tight embrace between a purely objective component and a subjective one composed of a set of value and credential hierarchizations that compose the ground of our reasons within a socioculturally typified second nature.

The pairs of features previously expounded, therefore, lose their apparent stiffness, revealing themselves not as natural aspects that force and constrain human behavior as they are inherited through secular evolutionary processes, but as beliefs grounded on a collective tradition, which has helped carve these statues-characteristics − which are able to provide a description, but are unable to exhaust an explanation of the complex phenomenon, such as rationality, that we are investigating.

Ultimately, we can state that "the capacities that underlie believing or acting for reasons may have been the subject of natural selection (for whatever reason); but once these capacities existed, society might have seized the opportunity to produce (somewhat) rational members" (Nozick 1995, p. 124), who are able to contribute to the formation of a particular interpretation of these capacities and of rationality itself. We thus understand how rationality is a

fundamental characteristic of human beings that emerges through both a phylogenetic and a social evolutionary process, highlighting how this faculty is inherently constituted by a fundamentally objective part, but in turn conditioned by elements of subjectivity that emerge from a second nature that distinguishes human beings.

1.2.Rationality within Society

We have therefore established that rationality emerges as a fundamental and foundational element of human beings, even and especially through a complex and articulate society. As well as that elaborate collective cultural context composed of beliefs, values, ideas and ideologies, rationality also reveals itself as something not so easy to describe and understand. From this different and multifaceted perspective, an urgency emerges, not only to better and more deeply comprehend the nature of the latter, but also to grasp the vivid magmatic field in which it is employed.

Natural science and theories of evolution, in this case, stop coming to our aid and give way to a broad set of philosophical reflections with the attempt to identify the relationship between society and rationality so that both can be better explicated and defined. Obviously, this task proves to be as arduous as it can be, making the complexity of that relationship evident. An emblematic figure placed at the level of this intricacy is that of the famous sociologist and philosopher Max Weber, who was committed throughout his life to grasping the structural characteristics of a subject within its collective field of action and whose work can help us elucidate the concept of rationality we are investigating.

Max Weber's research is vast and deeply interwoven with different

definitions and understandings of apparently similar concepts, making it difficult at first glance to fully grasp the main perspective through which the author seeks to define the disposition of rational agents within the social environment. Indeed, it is this broad landscape of interpretations and characterizations that grounds the intricate relationship between rationality and society. However, it is possible to narrow the field and identify macro categories through which to try again to answer the questions: what is rationality? What distinguishes a rational person?

Starting from the first query, we can propose a renewed answer through what seems to be the essential starting point for all the multiple variations of the concept of rationality that Weber proposes. The latter, according to Weber, must be understood as the *a priori* capacity for psychical behavior that defines human nature, not as something that simply works, like our physical structure[4], but as "a particular kind of mental operation that may or may not work" (Wallace 1990, p. 201)[5]. Rationality, thus, reveals itself as an intellectual procedure essential for defining our course of action trough a "consciously rulebound comparison and choice among alternative means to a given end" (Wallace 1990, p. 206).

It is precisely this activity, so defined, that underscores the inherently teleological relationship between motives to act, actual actions and outcomes that was previously mentioned in point (c) − concerning the fundamental characteristics of a rational person − and that now constitutes Weber's invariant definition of rationality itself. Still, a key and distinctive detail of the German sociologist's original vision must be highlighted. Unlike point (c) previously discussed, in this renewed and original definition of what defines the rational attitude, emotions can play a key role. The latter should not be suppressed

[4] Consider, for example, the kidneys or lungs, which conduct their work independently of our being aware of their good or bad functioning.

[5] It is necessary to mention here that the reported considerations regarding Weber's perspective are based on the content analysis of some of the author's key texts, such as: *Economy and Society*, *Collected Essays in the Sociology of Religion* and *The Methodology of the Social Sciences*.

because of the risk of being branded as irrational or incoherent, since they constitute an indispensable element for that mental-individual and collective-social characterization of the subject always involved with deep sets of values and beliefs.

Having thus posed a starting definition which it is impossible to disregard, it is now feasible to describe some of the various declinations Weber offers of that same rationality on the basis of human and cultural elements:

1) *Self-interest rationality.*
2) *Value rationality.*
3) *Substantive rationality*.
4) *Formal rationality*.

Self-interest rationality: This particular kind of rationality is conceived by Weber as elementary and overriding. Every human being is thus animated by an innate desire to pursue their personal self-interest as an inviolable need "fixed by genetic inherence in all human individuals" (Wallace 1990, p.209). This attitude toward the fulfillment of our wants can be understood as a practical biological disposition concerning the will to obtain what satisfies us and is preferable for our survival. With this distinctive interpretation of rationality, Weber seems to lay the foundations for a prima facie mental capacity inscribed in our very nature. A process that involves a seemingly endless calculation between different means to attain a particular "ultimate end toward which all the other so-called 'different possible ends' must be treated not as ends but as intermediate means in the causal chain that the individual expects will produce the ultimate end" (Wallace 1990, p. 208).

Properly understood in this manner, self-interest is presented as that unique feature which, on the basis of the ambiguity of our rational nature

previously pointed out, derives from an intrinsic biological characterization of the agent, naturally and evolutionarily programmed in this distinctive way. It is therefore a foundational economic interest that guides us, through an instrumental calculation of the information presented to us by the environment — whether natural or social — towards the realization of our actions.

Value rationality: In contrast to the self-interest-based rationality just described and totally embedded within a naturalistic framework, it is with value rationality that the social element proves to be indispensable and crucial for a more accurate understanding of our very essence and agentivity.

Each individual acts on the basis of motives that lead them to action, yet human beings, unlike a machine or omniscient intelligence, have limited computational power. Incapable of predicting and taking into consideration that endless stream of means by which to achieve the ultimate end, the rational subject resorts to sets of principles that guide them through life. Generosity, responsibility, attentiveness and benevolence are just a few examples of the several value aspects of an individual that mark a different rational frame no longer and not solely centered on the fulfillment of self-interest. Value rationality distinguishes itself therefore as that unique psychic behaviour through which a society, conceived as a collective set of individual identities, can produce "learned and individually variable ends…from one culture, subculture, or person to the next" (Wallace 1990, p. 210).

The detached mathematic-probabilistic calculation that qualifies the efficiency of the self-interest rationality leaves room to the necessary expression of groups of beliefs, ideals and values that constitute the social substratum and modify the agent that is part of it. It then becomes clear how it is in fact human society that enhances and enriches that solitary biological-natural disposition that was presented as the only available paradigm capable to exhausting a

complete description of rationality and the conduct of a rational subject. A society that “creates and inculcates values and ideas ("duty, honor, the pursuit of beauty, a religious call") that have the power at least to switch the individual's self-interested action from one ‘track’ to another, if not actually to override that self-interest” (Wallace 1990, p. 210).

Substantive rationality: Self-interest and value rationality constitute two different sides of the same coin, whose mould is provided by Weber’s invariant definition previously presented. If both of these faces, one biological, necessary and universal and the other social, possible and contextual, work to predictively define the best useful means to the accomplishment of a particular end through action, then substantive rationality implements this predictive structure through its evaluation. By means of a postdictive analysis of the obtained results throughout the decision-making process, this particular rational expression produces an as exhaustive as possible balance regarding the effectiveness of the selection and application of a given means (Wallace 1990). We can confirm, summarizing and clarifying, that "substantive rationality is considered to be a "valid canon"; that is, a unique "standard" against which reality's flow of unending empirical events may be selected, measured, and judge" (Kalberg 1980, p. 1155)[6].

At this level, what was described in point (a) reverberates. The rationality framed here servs as a sort of logical guarantor of the previous two, establishing that peculiar human inclination to observe, judge and learn. Substantive rationality thus defines the basis for understanding of our being rational within rationality itself, producing information that will be the foundation for future actions and that will in turn be organized into patterns on the basis of value postulates that imply entire clusters of values (Kalberg 1980).

[6] Kalberg quotes: Weber, Max. (1946) 1958f. "The Social Psychology of the World Religions." Pp. 267-301 in Essays. Originally: (1920) 1972. "Einleitung." Pp. 237-68 in GARS, vol. 1. P. 294 [266].

Formal rationality: If substantive rationality is to be explained as that particular type of logical activity related to the evaluation of the consequent results of a specific course of action, then, formal rationality implements this evaluative activity trough a set of theoretical devices that are able to ensure coherence and consistency in preparation of future actions. Formal rationality draws its shape from the socio-institutional context. Through a wide "range of socially invented measurement scales" (Wallace 1990, p. 214), this fundamental form of rationality seeks to constitute a collective archive composed of "universally applied rules, laws, or regulations" (Kalberg 1980, p. 1158) in such a way as to ensure some instruments capable of guiding every individual choice.

Formal rationality thus represents the theoretical ground, made possible by the previous assessments of the results obtained in the attempt to pursue our interests, thanks to which it becomes possible to create a vast range of rules, heuristics and ruses able to quicken and compact our decision-making process. A sort of universal, objective and abstract technical handbook, full of shortcuts, to be consulted before the usage of our reason within a practical horizon.

Having arrived at this point, thanks to the information and descriptions we have gathered, we can affirm with some degree of certainty that rationality is not a unique and distinct faculty, nor a straightforward group of qualities attributable to a subject, but a set of different psychic structures that are committed to performing diverse and specific tasks; and yet they mutually implicate each other in a complex web that is capable of capturing the behavior of all individuals within their vital context.

These set of psychic structures is invariably focused on a means-ends relationships, which are involved in an inescapable pursuit of the fulfilment of one's interests and desires; which may vary from person to person and from one

culture to another. Therefore, there is a possibility that, based on the need to assert certain beliefs or values, the genetic and universal mechanism of satisfying our interests may be modified and altered in light of something symbolically different — namely something that 'stands for something else'. In the meantime, the entire rational net must carefully understand the consequences of our choices, ponder them and take advantage of the information subsequently acquired in order to produce a regulatory system with the aim of protecting our nature and simplifying our interaction with the world.

Ultimately, by joining the nodes of this network, it is possible to describe a composite, logical, coherent, practical, substantive, and formal rationality that is intrinsically biological-natural and yet explicitly contextualized and modified through a historical, cultural and social lens.

Having marked a satisfactory ending point regarding the answer as to what the fundamental property that distinguishes us is and how it can be understood or described, all that is left is to resume the necessary clarification as to who the one who employs this faculty is and what qualities they possess. The rational agent ceases to be a simple virtuous person, distinguished by an adequate logical capacity and a distinct ability to reason with coherence and consistency without any emotional conditioning. We are therefore rational from the moment we orient ourselves between the different natural and social horizons by pursuing our interests in the attempt to satisfy our desires and perform our actions in the most effective way possible. Taking into consideration not only the variables between the balance of gains and losses, but showing a more profound necessity to uphold our beliefs and values, expressing and sharing them even at the cost, at times, of altering the very interests and desires we thought we wanted. All in accordance with rules and behavioural patterns that we contribute to establish and create to simplify and verify our attitude and conduct in order to facilitate our choices. A conduct, moreover, that is monitored

through an inexhaustible and constant work of evaluation aimed at the most punctual review of the entire structure that constitutes us; from the results of our actions by evaluating their outcome to the laws that limit and guide us throughout our activities.

Finally, the rational subject takes a well-defined form: naturally adapted but socially contextualized and modified, characterized by a complex psychic structure aimed at understanding; this is what distinguishes a rational person.

1.3.Facing Rationality Today

Through a broad analysis of some of the focal concepts in the work of the economist, sociologist and philosopher Max Weber, we have come to understand how modernity has conceived rationality. The collected notions have led us to a formal description of the rational agent embedded in a sociological-natural context and to a multifaceted comprehension of human reasoning. Nevertheless, we must be cautious and not jump to hasty conclusions, since one of the most important considerations Weber brought forward consists in the acknowledgment that human beings and society are constantly changing and growing, as are their interests. It is precisely for this reason that different conceptions of rationality started to unfold from the Weberian tradition, which today constitutes the theoretical terrain of a contemporary debate nurtured by brilliant minds, engaged in the development of new theories and interpretations in a constant attempt to come to terms with an ever-changing world.

Therefore, if we want to bring clarity about what it means to be rational and how we ought to understand this faculty, we cannot stop at what has already been said. We need to go a step further to better grasp the contemporary horizon

of the dialogue, and in order to do so, it is necessary to define two of the recent and most influential interpretations within the latter, namely: 1) Unbounded-Bounded Rationality and 2) Structural rationality.

Unbounded-Bounded Rationality: Using Gigerenzer's words, we can assert that "unbounded rationality assumes that more information and calculation is always better and that rational decision-makers are omniscient (know all there is to be known), omnipotent (able to use all known information and calculate the best strategy), and omnipresent (keep preferences in the same order)" (Mousavi and Kheirandish 2014, p. 1781). The perspective outlined here highlights a type of statistical rationality that finds its strength in computability, mathematical beauty, and the power of probability. It is a model that claims to predict, in every case, the mechanism capable of leading to the best possible solution when making a decision. It is no coincidence that this model is widely adopted in the economic realm, where a larger amount of information and significant computational power supposedly enable market trends to be forecasted and effective strategies to be devised. This is a limitless model that relies on mathematical-probabilistic omnipotence and Bayesianism[7] as strengths to achieve that desire-based rationality, aimed at finding the best means in order to accomplish our goals that Weber introduced. However, it is evident that this perspective, although enticing, fails to take into clear consideration a crucial factor: human beings are neither omniscient nor omnipotent. There is a limit to their knowledge and computational capacity, and the problems they face on a daily basis often do not allow for such precise and in-depth analysis. We can deduce, therefore, that

[7] "Bayesianism has two distinct components. The first tells us what your state of mind ought to be like, whilst the second tells us how you ought to act given that state of mind. Let us call the two components the epistemic and the deliberative component, respectively. The epistemic component of Bayesianism is a claim about what rational agents ought to believe, and which combinations of beliefs and desires are rationally permissible. In essence, the theory holds that one is free to believe whatever one wishes as long as one's beliefs can be represented by a subjective probability function, and those beliefs are updated in accordance with Bayes' theorem". (Peterson 2009, pp. 200, 201)

this unbounded viewpoint focuses on taking the role of efficiency and coherence to the extreme in describing a rationality entirely dedicated to the selection of means, ultimately forgetting Weber's significant reflection on values and community. It is from these observations that the bounded counterpart emerges.

Herbert Simon, the 'father' of bounded rationality, describes it as involving two structural interconnections. The first is based on the limitation of human knowledge and subjective understanding, which implies that "models of human judgment and decision-making should be built on what we actually know about the mind's capacities rather than on fictitious competencies" (Todd and Gigerenzer 2000, p. 730). The second is based on the nature of the environment in which the individual and the mind operate. The environmental structure is of crucial importance to this model because it explains when and why simple heuristics perform well. Starting from these simple characteristics, which outline the basic theoretical structure of an approach that opposes the mathematical, substantive and unbounded conception of rationality, it is possible to grasp how that value-rationality that Weber described has been deepened through a reflection whose aim is to reach an understanding of the human being that considers not only the relations between means and ends, but also the environment and the cultural field of the rational agent. The reason for valuing that cultural environment derives from the acknowledgement that "commonly in real-world decision situations cognitive limitations with respect to computational capability and knowledge of the environment necessarily mean that human rationality is bounded" (Shakun and Melvin F. 2001, p. 108). Therefore, "We must give an account not only of substantive rationality—the extent to which appropriate courses of action are chosen—but also procedural rationality—the effectiveness, in light of human cognitive powers and limitations, of the procedures used to choose actions" (Klaes and Sent 2005, p. 42). This further advancement provided by a procedural conception of rationality leads to a shift in objectives, since the

latter is not concerned with the solution to a problem (i.e. what is the best means in order to achieve a goal), but with the process itself used to discover the aforementioned solution. We can therefore summarize by arguing that, for Simon, focusing on external social constraints and internal cognitive limitations to decision-making, emphasising its articulation rather than its outcome, constitute what is fundamental in order to better understand rationality within groups and environments (Klaes and Sent 2005).

Ultimately, Bounded rationality underlines the value and contextual aspects that Weber had identified in order to give due consideration to the credential, social and external factors of a collectivity imbued with these exquisitely human elements and that are now, through an approach that distances itself from a cold system of mathematical-probabilistic calculation, recovered through a procedural framework. The latter focuses not so much on what rationality is *per se*, but on how the environment and cultural assumptions can influence the decision-making process of individuals who are emotional, conditioned and defined by a personal history[8]. This is precisely because "a body of theory for procedural rationality is consistent with a world in which human beings continue to think and continue to invent; [whereas] a theory of substantive rationality is not" (Kastelein et al. 1976, p. 85).

Structural Rationality: While the bounded model of rationality has proven to be a conscious strategy for grasping the relevant elements of a real world, in order to understand the psychological process of an agent through a procedural system, the structural definition of mental capacity itself takes the theoretical analysis of the latter to its limit. External conditions cease to be relevant in order

[8] It is precisely the taking into account of these social and contextual elements as fundamentally relevant and valuable that makes bounded rationality warmer than a rationality that merely assigns a number to each element to be considered, without taking into account its background and personal impact on the agent subject.

to develop an understanding of rationality that focuses entirely on its internal function. Thus, structural rationality is only interested in describing and understanding the mechanism of a complex intellectual machine that needs to be grounded in specific requirements that must be well maintained and followed, leaving aside our personal interest or situation as a consequence of an independent structure that has to be understood on its own.

The qualitative progression provided by a formal definition and analysis of the non-personal frame of reference just described again emerges from a departure from the substantive quality of previous models or rationality aimed at determining precisely what particular reason we ought to have in a given situation. For example, if we intend or desire to eat an apple that is in front of us — because we are starving — and that we can reach with a simple arm movement, then we have a precise strong reason to move our arm in order to grab the apple and eat it. Therefore, to be rational, we ought to follow that reason rather than another because in a weighting of several possible reasons, that particular one proves to be the best. Hence, if we failed to stick to that reason we would end up being defined as substantively irrational, since one is substantively rational if, after deliberating on the choice among various reasons, one follows the strongest one to achieve one's aims and objectives. Whereas on the contrary, "structural (ir)rationality is a kind of (ir)rationality that we can detect simply by looking at a particular combination of attitudes that a person holds, independently of any assumptions about the reasons that this person has for holding the particular attitudes in question"[9] (Kiesewetter 2017, p. 14). The definition provided by Kiesewetter, and inspired by Scanlon's work[10], is essential to correctly identify the

[9] Brackets added.

[10] Thomas Michael Scanlon represents a leading figure within moral philosophy, where he has developed an original conceptualization of contractualism based on authors such as Rawls, Kant and Rousseau. However, ranging in his work, he has contributed to broadening the debate around 'reasons' and their inherent normativity relative to action. A position that has been referred to by Scanlon as 'Reasons Fundamentalism'.

peculiar uniqueness of the structural conception of this rationality, which is delineated as strictly formal: "*evaluations of the structural rationality of some combination of attitudes can be made independently of judgments about which (if any) of the individual attitudes within the combination of attitudes is substantively rational, or adequately supported by reasons*[11]".

But we can try to make this easier to understand with another example: "*if a person intends to do A at t, and believes that in order to do this she must first do B, then it is irrational for her not to count this as a reason for doing B…Normative claims of this kind involve claims about what a person must, if she is not irrational, treat as a reason, but they make no claims about whether this actually is a reason"* (Brennan, Goodin, Jackson, Smith 2007, p. 84). It is precisely this independency from judgements and non-involvement of claims about individual reasons that makes the structural configuration the best system for a comprehensive insight into the essence of rationality, which consists of conforming to formal requirements that enable us to make our reasoning, our psychological disposition or the whole of our attitudes coherent.

Furthermore, this coherence is well depicted by a sharp concept: that rationality supervenes the mind. But what does this conceptualization actually mean? We can answer with an example similar to the one proposed by Broome in his text *Rationality through Reasoning*[12]: Suppose I want to watch a film on TV scheduled for 9 p.m. (meaning A at t), this intention generates a series of attitudes implying that if I want to watch the film I intend to watch I ought to be in front of the TV, on the right channel, at 9 p.m. (meaning B due to A at t). If I fail to be in front of the TV screen at 9.00 p.m., perhaps because I had something unforeseen come up or forgot I had an appointment, this does not make me irrational if

[11] *Cfr*. Kiesewetter, Benjamin and Alex Worsnip, "Structural Rationality", *The Stanford Encyclopedia of Philosophy* (Fall 2023 Edition), Edward N. Zalta & Uri Nodelman (eds.), URL = <https://plato.stanford.edu/archives/fall2023/entries/rationality-structural/>.

[12] For a comparison with Broome's example regarding the description of the concept that rationality supervenes on the mind, see p. 152 of the cited book.

I haven't changed my mind - or my set of attitudes - regarding the intention to watch the film. Thus, to say that rationality supervenes the mind means that: "*if your cognitive attitudes are the same in one situation as they are in another, then you are rational in one situation to the same degree as you are rational in the other*" (Broome 2013, p. 164).

We can ultimately reiterate with some clarity that structural rationality says nothing about the actual reasons we should have, but is concerned with establishing the coherence that must be maintained through our psychological attitudes — thanks to some requirements that rationality ought to have — in order not to be considered irrational. Implying therefore a strictly structural reflection, this form of rationality comes to entail a great generalizability, as it is possible to state such structural coherence between intentional mental states completely abstracting from the content of these states themselves. The important thing is that the formula is valid, that is logically correct and consistent, regardless of the reasons we are working with, which is why structural rationality can be described with the adjective formal.

Both these theories (namely, the unbounded and structural ones), constituting two distinct sections of the contemporary debate, highlight a sort of debt, albeit a blurred one, to Weber's work, but they clearly illuminate how the interest in clarifying rationality has shifted from a substantive terrain to a formal network. The desire to pragmatically grasp the concrete, factual decision-making of individuals grappling with their own interests gives way to a reflection centered more on structure, processes and conditioning, highlighting how the debate has evolved towards a conviction that rationality, in order to be properly understood, must be analysed in itself, as an autonomous faculty, with its precise rules and workings, independently of the individual who uses it. Having arrived at this

conclusion, it is useful to understand how this tendency has particularly expanded within various deductions and research conducted along the lines of a structural rationality that today constitutes perhaps the largest slice of a debate that is still very much open.

2.NORMATIVITY

2.1.Normativity and Rationality

The structural conception of rationality we have just summarised helps us to capture the formal shift in a debate more concerned with coherence and compliance with a number of requirements. But what exactly are these requirements, in what terms should they be described and what do they imply? These questions are just some of the many that may arise regarding these rules or norms, but let us try to provide as much clarity as possible by addressing at least some of them. Let us first try to understand the nature of these requirements and in what general terms they can be described. In this regard, Broome comes to our aid by providing a summary view of how these elements can be understood:

> *The verb 'requires' has a number of senses. The first appears in constructions where its subject denotes a property: 'Beauty requires hard work'; 'Staying healthy requires you to eat olives'; 'Success in battle requires good horses'; 'Crossing the Rubicon required determination'. Here I say 'requires' has the 'property sense'. In other constructions the subject of 'requires' denotes a person or thing that has some sort of real or presumed*

> *authority: 'The minister requires the ambassador's presence'; 'The law requires you to drive carefully'; 'The bill requires payment'; 'Fashion requires knee-length skirts'; 'My conscience requires me to turn you in'.* (Broome 2013, p. 109)

The second sense described by Broome is of primary significance, because it denotes a different interpretation of the verb 'requires', which ceases to identify a property of the subject of a proposition and instead comes to be characterised as a *source*. This second definition makes it possible to grasp the central meaning of the requirements related to the structural characteristics of a rationality based on norms. Following the interpretation provided by Broome, these requirements, functioning as a *source,* come to imply a strong prescription. Therefore, we can say that rationality, being structured by these requisites, *prescribes* us to coherently act, believe or intend a certain thing.

It is important, however, not to forget that, as per the formal conception of rationality, what the latter "requires of [us] is primarily states of [our] mind, not bodily actions. Rationality is a mental faculty, so that rationality can require of you only what can be infallibly achieved by [our] mind" (Broome 2007, p. 323). We can therefore state, following the second sense of the verb 'requires' and considering the mental aspect of rationality that is taken into account here, that 'requires' "is a subset of the necessary conditions for being rational" (Broome 2020, p. 300), and more precisely structurally rational. Finally, taking the above into consideration, the way this 'source' set of prescriptive requirements is to be understood as the set of *rational requirements* becomes evident.

Let us take a step forward. Rational requirements prescribe us something, but what exactly is this something and furthermore, how exactly do we formulate these prescriptive requisites? Once again Broome helps us take stock of the scene:

> *Rationality requires various things of you. For example, it requires you not to have contradictory beliefs, to believe what follows by modus ponens from things you believe, to intend what you believe to be a necessary means to an end that you intend, and to intend to do what you believe you ought to do.* (Broome 2007b, p. 161)

Taking up what has been said, we can transform the description just given into two general formulae:

> [MR][13] *Modus ponens.* Rationality requires of N that, if N believes p and N believes that if p then q, and if it matters to N whether q, then N believes q.
>
> [ER][14] *Krasia.* Rationality requires of N that, if N believes that she herself ought to F, and if N believes that she herself will F if and only if she herself intends to F, then N intends to F.
>
> (Broome 2007b, p.161)

These are just two[15] general formalisation of how the requirements that we are now outlining comes to appear under an inferential presentation. Although they do not exhaust the entire set of requirements, we can define them as general starting points in order to create a preliminary idea capable of contextualising the difficult logical-structural approach that these same requirements support. We can, however, immediately remedy this incompleteness by proceeding on our

[13] The acronym (MR) stands for: Modus Ponens Requirement. This acronym is used by Kiesewetter in his text *The Normativity of Rationality*, and it is useful to add this here in order to maintain structural coherence with what will be clarified later in the chapter regarding the requirements of rationality.
[14] *Cf*, the previous note.
[15] While *Modus pones* turns out to be almost self-evident on the basis of its strictly logical-causal structuring, *Krasia* deserves clarification. From the point of view of its formulization, *Krasia* exceeds the simple logical connection between premise and conclusion and inserts within its structure the credential element. An element that, as we shall see later, is somewhat sidelined by Broome and which Parfit instead recovers. The subject must 'believe' in a series of causal connections that must find their justification on the basis of the facts concerning the state of affairs. *Krasia* imposes normativity on the basis of a belief in the unequivocal necessity that must be intended by the subject.

way and taking another step, which can lead us to an exhaustive list of what will appear below as the set of requirements underlying rationality:

> *First requirement*. Rationality requires of you that you do not both believe p and believe not-p.
>
> *Second requirement*. Rationality requires of you that, if you believe p and you believe (if p then q), and if it matters to you whether q, then you believe q.
>
> *Third requirement*. Rationality requires of you that, if you intend to G, and if you believe your Fing is a necessary means to your Ging, and if you believe you will not F unless you intend to F, then you intend to F.
>
> *Fourth requirement*. Rationality requires of you that, if you believe you ought to F, and if you believe you will not F unless you intend to F, then you intend to F.
>
> (Broome 2005, p. 322)

We have arrived to a clear formalisation of what is prescribed by the fundamental rational requirements. However, it seems difficult to grasp the content of the four propositions immediately, and it is precisely because of the use of technical schemata. It is therefore important to clarify how the latter are to be read and understood. As regards the formulation named *modus ponens*, the letter (N) represents a subject, intent on believing in a specific state of affairs (p), where (p) can thus be substituted for a general verb phrase. The same applies to (q). With regard to the formulation named *krasia*, the letter (N) likewise represents the subject of the requirement, where (F) stands for a state of affairs or course of events that can be summarised with a verb phrase. In the next four listed requirements the subject is made more explicit. The use of the letter (N) falls away and a clear reference is made to who is to be called upon to fulfil the requirement. Thus, with respect to the four schemata we can state that: (p) and (not-p) identify

a contradiction between states of affairs — such as 'it is raining' and 'it is not raining'. The second requirement takes up what was said for modus ponens. The third requirement uses the letters (G) and (F) as explicators of verb phrases where the addition of the suffix (-ing) implies the enactment of the verb phrase symbolised by the corresponding letter. Finally, the fourth requirement takes up what has been said for the krasia model. The use of these schemata not only serves as a graphic synthesis, but also makes it possible to generalise a cognitive logical mechanism with respect to which the subject is required to respond correctly. The requirements thus constitute a sort of blueprint[16] for the correct functioning of our mental states.

In summary, then, these schematic requirements represent a set of rules that prescribe a sort of obligation for us to be able to deal with our situations correctly, but to do so they must possess certain characteristics. This set of formal rules or structural gears must be local, referring to mental-attitudinal states and functioning synchronically[17]. The 'source' sense they entail refers to local situations in which imperfect individuals try to act, understand, believe and decide. To be functional, therefore, the requirements described must be local, state requirements that correctly organise, control and order our mental states and attitudes synchronously to make them coherent in an attempt to deal with local problems relating to the needs of the rational agent who, by adapting to these

[16] Let us try to explicate these blueprints constructed on the basis of the simplification in letters present in the requirements. Assume that each letter corresponds to a mental state present within the subject intent on rationalizing what it is necessary for him to do, given a state of affairs. The state in question is having to leave the house during a day with uncertain weather. The *second requirement* thus states that rationality requires the subject that if the latter believes that it will come to rain (P), that if it rains she will get wet (P → Q), and that it turns out to be relevant to the subject whether or not she will get wet, then the subject will have to believe that she will get wet unless she does something to prevent it. Thus comes into play the *third requirement* that communicates at this point, that the subject is rationally required, if she intends not to get wet (G), if her taking the umbrella (Fing) is a necessary means for her not to get wet (Ging), and if the subject believes that she will not take the umbrella unless she intends to take it, to take the umbrella.

[17] To say that the requirements are synchronous is to say that "they are concerned only with attitudes that exist at a single time". (Broome 2013, p. 153)

requirements and correctly responding to their indications, will be able to adjust himself in order to be as rational as possible.

It is thanks to these distinctive traits, to their formulation, and to their capacity to prescribe a specific attitude that the requisites show their authority within a structural conception of rationality. The latter precisely with respect to their ability to prescribe a certain attitude from within a correct relationship between mental states acquire a normative value intrinsic to rationality itself, which ultimately leads to the latter also being considered normative. If this is the case and this is the conclusion we can draw, however, it remains fundamental to understand what kind of normativity we are dealing with.

From a very intuitive point of view the term 'normative' refers to 'norms' and, as what we already know, the requirements of rationality serve the function of rules. It is therefore easy to conclude that the normativity of these requirements is that which simply concerns rules and formal laws. However, we have also pointed out that the force of these requirements is not only to establish a standard of correctness but to actively prescribe a certain attitude. If we are to properly consider this aspect of the requirements, the normativity they imply must be understood in another, stronger and more stringent way. If we conceive this strong normativity[18] as a dictating property involving 'ought' or a 'reason'[19], then we can state that "a person is normative if she does whatever she ought to do, believes whatever she ought to believe, wants whatever she ought to want, and so on"(Broome 2020, p. 294). This second conception succeeds better in rendering the active value of the requirements that convey and identify with a relation, namely the one that states that: "*one thing normatively requires another*" (Broome 1999, p. 398).

[18] Strong normativity*: Necessarily, if rationality requires N to F, then N ought to F because rationality requires N to F.* (Broome, 2007, p. 163)
[19] *See*, (Broome 2007)

It ultimately becomes possible, therefore, by grouping together all the clarifications accumulated so far, to reformulate the requirements of rationality in a more precise manner, so as to take into account in this renewed formulation the strongly normative character that the latter require as constituents of a necessary relation. The general formula of the structural and normative requirements of rationality comes to be identified in these terms:

> *If A is in attitude-state α, then A is required to be in attitude-state β". Such requirements are conditional on one attitude-state and have the other attitude-state as their object. We can call the first attitude-state the antecedent state and the second the consequent state. Because only the consequent state is the object and thus part of the scope of the requirement, such requirements are often called 'narrow-scope requirements*.
> (Kiesewetter 2017, p. 46)

And the complete explication of the general formula in its four schematic declinations now becomes reformulated as follows:

> *(ER) Normative enkratic requirement, narrow-scope: If A believes that she ought to ϕ, then A ought to intend to ϕ.*
>
> *(IR) Normative instrumental requirement, narrow-scope: If A intends to ϕ, and if A believes that ψ-ing is a necessary means for ϕ-ing, then A ought to intend to ψ.*
>
> *(DR) Normative doxastic enkratic requirement, narrow-scope: If A believes that she has sufficient evidence that p, then A ought to believe that p.*

> *(MR) Normative modus ponens requirement, narrow-scope: If A believes that p, and if A believes that p → q, then A ought to believe that q.* (Kiesewetter 2017, pp. 81-2)

But why choose normativity as that pivotal concept on which to build a structurally inescapable rationality? What is involved in arriving at the conclusion that requirements, in their narrow scope, imply a strong normativity for which we must account? It is precisely this relationship with normativity that gives the structural conception of rationality not only a formal theoretical property capable of helping us to better understand the very nature of its operation, but also constitutes a law-like force capable of justifying the choice of this approach, over others, precisely because it is founded on a prescriptive element to which, on the basis of valid reasons, we are required to respond or which we are required to respect in order not to be considered irrational. We have described and clarified the fundamental elements, their functioning and their importance within a strictly structural conception of rationality. We have done so without questioning it, assuming its development to be as logical and coherent as its very nature. However, the problems in accepting this perspective without hesitation are not few, and if not taken seriously, they risk leading us towards an understanding, however apparently convincing, that is not exhaustive. An understanding that is compelling and with which it is easy to agree, as with the general and biological interpretation with which we started, but which cannot help but implicitly assume problematic aspects with respect to which the question as to what rationality is, how it functions and how agents relate to it, cannot be said to be concluded.

2.2.Bootstrapped

We have said that uncritically accepting the normative approach of narrow scope requirements without questioning them can lead to a number of problematic conclusions. The most obvious of all is the one that leads to a form of detachment of undue conclusions. Let us briefly recap the situation in order to make the problem as clear as possible. We have concluded that rational requirements constitute a relationship between mental-attitudinal states involving a prescriptive-normative element in the form of 'ought'. The relation in question is constituted through a connection between an antecedent attitude-state and a consequent attitude-state that constitutes the object of the requirement and has therefore been defined as having a narrow scope. Starting from this position it becomes possible, through closer inspection, to note that "whenever the antecedent is satisfied, we can detach a normative conclusion about what we ought to do" (Kiesewetter 2017, p. 82). Kiesewetter himself was fully aware of this and drew attention to the significant issue at hand: The normative requirement of a narrow structural rationality permits the detachment of an assumption. Since A can be assumed to have the same normative value as B, it is a kind of detached[20] deduction[21].

[20] The problem exposed here becomes clearer if we bring to mind what we had pointed out with the clarification regarding *Krasia* exposed as a requirement by Broome. What creates tension is the undue transposition of the general normativity of the whole requirement on the basis of a part of it, or of the normativity of a subsequent element (B) on the basis of the normativity of a previous element (A).

[21] *Cft.* Kiesewetter, Benjamin and Alex Worsnip, "Structural Rationality", *The Stanford Encyclopedia of Philosophy* (Fall 2023 Edition), Edward N. Zalta & Uri Nodelman (eds.), URL = <https://plato.stanford.edu/archives/fall2023/entries/rationality-structural/>.

This apparently simple observation has, however, generated a great deal of reconsideration with regard to requirements, resulting in a seemingly unsolvable puzzle that has come to be known as 'Bootstrapping'. So, what is meant by Bootstrapping and why does this concept manage to challenge what has been said so far about the requirements of rationality? We have just noted how the assumption of an antecedent implies a possible detachment. The latter is precisely the pivotal point that initiates the bootstrapping movement that Kiesewetter himself highlights. By bootstrapping problem, we therefore mean pulling out "a decisive reason to take some means into existence, simply by intending an end you have decisive reason not to intend" (Kiesewetter 2017, p. 82). The gist of the matter is that we cannot "bootstrap an 'ought' into existence simply by believing in it" (Kiesewetter 2017, p. 83). The problem involved in dragging into reality the fundamental elements we used to provide the normative characterisation of requirements, namely ought and reason, becomes even more apparent if we follow an example provided by Kolodny:

> *…suppose I believe that I have conclusive reason to have some attitude. In some sense, I ought to have that attitude; it would be irrational of me not to have it. Now suppose that 'ought' here means 'have reason.' Then we get the bootstrapping result that if I believe that I have conclusive reason to have some attitude, then I in fact have reason to have it. This is absurd.* (Kolodny 2005, p. 512)

Requirements, therefore, due to this unavoidable consequence, lose their normative status and, in losing the latter, bid farewell to their prescriptive capacity, thus causing the system to collapse from the foundations. The scope aimed too narrowly and ended up hitting an outward target. This mistaken aim leads struc-

tural rationality to lose grip on those local aspects. Thus that structural scaffolding we had carefully erected turns out to be incapable of telling us what we should do, as the requirements that supported it "seem to be merely standards for appraising our current condition" (Kolodny 2005, p. 517); an evaluative system of those mental states that constitute our orientation in thinking and acting.

Other critical points highlighted, again by Kolodny, concern, for example, other constituent elements of the description of the requirements that we have been able to define, in particular a questioning of the synchronic status of the latter and of their referring only to states. According to Kolodny, the description of requirements in terms of states would not allow us to grasp the processuality inherent in the development of our mental faculties, and this same processuality, which seems fundamental for the description of requirements in their constitution as a relation between antecedents and consequents, could only take place by assuming a diachronic position regarding the requirements themselves.

There is no space here to elaborate on these criticisms, which nevertheless constitute a number of weaknesses that Broome nevertheless defended[22]. What deserves to be analysed in a little more detail, however, is a consequence that emerges from highlighting the bootstrapping problem. A consequence that takes the form of a question: Do we really have reasons to follow and comply with rational requirements?

On the surface, there would seem to be a positive answer, and it is the same one that Broome tries to follow in an attempt to save the normativity called into question. Following Broome's reasoning we could arrive at a convincing position that if the requirements of rationality are indeed normative it is probably because of a number of instrumental reasons (Cfr. Broome 2005, p. 332). This justification on an instrumental basis seems convincing since, if we rational agents

[22] For further comparison on these criticisms compare: (Broome 2013) and (Kolodny 2005); on state requirements vs. process and diachronic vs. synchronic

are in possession of a particular faculty, described by Broome himself as a "bundle of dispositions and abilities that causes you to satisfy many of the requirements of rationality" (Broome 2005, p. 333), then this same faculty would seem to be "part of the best means we have of achieving something we ought to achieve" (Broome 2005, p. 333). And so we could firmly conclude that "If the rational faculty were not instrumentally successful, it would not be the case that we ought to have it" (Broome 2005, p. 334)

However, corroborating the structural position through instrumental justification seems to tell us little or nothing more about having reasons to meet the requirements of rationality and consequently confirm their normativity. Simply, from the fact of necessarily having a general faculty, "it does not follow that you ought to be in any particular state that the faculty causes you to be in, nor that you have a pro tanto reason to be in that state" (Broome 2005, p. 335). Or to put it another way: "*just because there is a reason for which you satisfy a requirement of rationality, it does not follow that there is a pro tanto reason for you satisfy it*" (Broome 2005, p. 335). And it is precisely for this reason that "since nothing guarantees that conforming to a rational requirement is an effective means of doing what one otherwise has reason to do in each particular case, it also does not follow that we have reason to conform to rational requirements in each particular case" (Kiesewetter 2017, p. 104).

Despite the attempt to defend the requirements, their normativity and more generally the structural conception of rationality, all that remains is to reconsider the points from which we started and which we had assumed as self-evident. So, if the big question is whether or not we have reasons to go along with the requirements of rationality, if in addition to bootstrapping and criticism with respect to the properties of the requirements themselves what establishes the point of the question is an ultimate reference to what drives us to consider all these factors or not, it seems clear to me that it is precisely the role that reasons

occupy that constitutes the decisive juncture. Indeed, in spite of all the complex theoretical insights that the authors within the debate have addressed, the system falls apart unless a valid and decisive reason can be found to hold it up.

2.3.Normativity of Reasons

We have shown how reasons in a certain way determine whether or not we stick to a conceptual framework that can guide us and orient us to action through the correct management of our mental states. Reasons therefore constitute a pivotal point. If we have reasons that motivate us, then we have nothing to hinder us from choosing to go along with a particular system. If we do not have them, we are not bound to comply with anything in particular. Outlined in this way, the situation seems to emphasise a strong responsibility that rests firmly on the shoulders of the reasons, which almost become a needle in the balance, the judge who pronounces the final verdict. This metaphor cannot but wink at the legislative realm, a realm that encapsulates the very concept of prescription. Following this path, that apparent[23] normativity that had been woven into the fabric of requirements, could be nothing more than a force deriving from our reliance on reasons in order to orient ourselves between intentions and decisions.

Let us try to consider this option concretely and put ourselves in the shoes of an ordinary subject intent on managing his cognitive process in order to carry out an action. In attempting to consider what drives us in a certain direction, or rather, to understand whether we are required to respond to a normative element,

[23] The idea that the normativity of rationality, coming from its close relationship with requirements, is to be understood as 'apparent' comes from the article *Why Be Rational?* written by Niko Kolodny. The reference to this article will be mentioned several times in this section given its great contribution to the issue we are now addressing.

we must be transparent to ourselves. In short, we have to analyse ourselves from the inside, from a subjective point of view. It is Kolodny himself who develops an argument relevant to this level of transparency[24], suggesting a strategy to highlight how it is the reasons that determine the grip that the rational structure has on the acting subject. Kolodny suggests that we synthesise the problem of requirements in order to simplify the analysis regarding their normativity, and to do so he postulates two 'core requirements' from which all the others can be derived:

> *C+: If one believes that one has conclusive reason to have A, then one is rationally required to have A.*
>
> *C-: If one believes that one lacks sufficient reason to have A, then one is rationally required not to have A.*
>
> (Kolodny 2005, p. 557)

Observing these requirements, Kolodny asks himself: "*why does being subject to a rational requirement such as C+ feel normative 'from the inside'?*" (Kolodny 2005, p. 558). And his response is not long in coming: "*because a reason that someone believes he has is, from his point of view, a reason simpliciter. In other words, given what the antecedent of C+ is, it will always seem to someone to whom C+ applies that he has reason to comply with it*" (Kolodny 2005, p. 558).

It is precisely from this internal point of view that the subject is able to grasp that prescriptiveness, which we had used to describe the requirements, as transparent. The normative force that only requirements seemed to possess, and which they conveyed to rationality in general, now appears as derived from the reasons that the subject believes it has, and which it recognises precisely because they are 'its own'. Picking up on Kolodny, we might conclude by saying that: "*on*

[24] *Cfr.* (Kolodny 2005)

this account, to say that someone 'ought rationally' to have some attitude is to say that, as it seems to him, he has reason to have it" (Kolodny 2005, p. 558). Following this reasoning, however, what can be identified is only an apparent normativity. Nevertheless, we have taken a step forward. However apparent, this normativity can be described and justified from the side of the reasons and is perhaps sufficient to continue in this direction, which, unlike the narrow perspective of requirements, does not seem to lead us to a dead end. It is the same direction, in fact, that Kiesewetter takes in his attempt to provide an alternative perspective on how to understand rationality, its requirements and the reasons connected with them.

Kiesewetter's aim is precisely to defend the normativity of rationality — in the sense that we ought to be rational — from the problems we have raised so far, and he does so through the use of reasons, thus definitively abandoning the perspective that saw the requirements of rationality as intricately normative. Kiesewetter then makes what he calls 'the reason claim', in respect of which:

> *The reasons claim: A is normatively required to ϕ if, and only if, A has decisive reason to ϕ.* (Kiesewetter 2017, p. 4)

At this point, the big question as to whether rationality is normative or not no longer seeks an answer in some kind of formal rule, but looks for reasons that can provide a satisfactory answer. Indeed, following Kiesewetter's line of argument: "*Once such reasons are given, once there is agreement that there are decisive reasons for giving a certain response, the normative question*[25] *is answered*" (Kiesewetter 2017, p. 4).

[25] The 'Normative Question' represents a fundamental theoretical point that has involved several authors attempting to provide a justification for the apparent normativity that rationality implies or should imply. The question is first formulated in a slightly different aspect by Christine Korsgaard (For a reference to Korsgaard's article, *cf*. O'Neill 2013). Subsequently, the question and the attempt to provide an answer to it was taken up by Broome (Broome 2005, 2007, 2013), Kolodny and other authors within the debate.

The only apparent normativity that we had highlighted with the help of Kolodny's position now becomes more tangible. It is precisely the reasons, following what Kiesewetter says, that imply that prescriptive authority of normativity. We have definitely moved, at this point, from requirements to reasons. Yet what are these normative reasons? In what do they consist? It is again Kiesewetter who gives us the answer: "*Normative reasons are, at least typically, ordinary facts*[26] *(or true propositions), such as the fact that you have promised to attend a meeting, or the fact that some treatment will provide the cure for a disease. Some reasons are also facts about one's internal states (consider the fact that you have a headache). But they are typically not mental states themselves, and they are never false propositions*" (Kiesewetter 2017, p. 6). Reasons are thus constituted as facts concerning the world in which the subject finds himself and which provide a motivation or drive, but are not to be understood as a mental state. For "whenever a mental state is cited as a normative reason, we can always reformulate this reason as a proposition or fact" (Kiesewetter 2017, p. 7). This clarification is essential because if we end up considering reasons as mental states per se, we would end up considering them as an element governed by those requirements from which we are now completely distancing ourselves.

However, we must now ask ourselves how to understand this drive. How is this intrinsic motivation of reasons to be understood? If we consider, taking up that introspective and transparent process we mentioned earlier, our orientation between mental states as a deliberative act, then the motivation identified by the reasons, as facts, will be the decisive factor to "determine what you ought to do or may do" (Kiesewetter 2017, p. 8). Thus we can describe "the 'ought' that is provided by what we have decisive reason to do the deliberative 'ought'" (Kiesewetter 2017, p. 9).

[26] The question of what a 'fact' actually is and how it should be understood within the reference horizon of reasons and their relation to rationality will be explored later, when Derek Parfit's perspective on the rationality debate is addressed.

We thereby manage to provide a satisfactory description as to why reasons, understood as motivating facts, can be understood as vehicles of the normativity that had previously been assumed as the exclusive domain of the requirements of rationality. However, if we abandon the strictly structural perspective based on requirements as the fundamental element to justify a rationality that constitutes us and describes our way of orienting ourselves in the world, we must now find a way to revisit our conception of rationality in such a way as to ground it and construct it on the basis of these solid reasons that we have pinpointed here.

2.4.Rationality as responding correctly to Reasons

The subject lives in a world made up of a multiplicity of facts and, stimulated by them, will always, willingly or unwillingly, have to account for them. By picking up the crumbs strewn by the previous paragraphs, we are able to move away from a crumbling house erected with the aid of formal requirements, and head towards a voice that calls to us and to which we are bound to respond, namely the voice of reasons. Moving on from the metaphor, we can more simply say that, having abandoned a structural perspective that is perhaps too narrow, rationality once again comes to terms with the external world, goes beyond the limits of the merely mental, and thus allows us to understand how the faculty that distinguishes us can be exhausted by understanding it as a capacity. The capacity to respond correctly to the reasons that constitute the facts of the world and that motivate us in our relationship with the world itself. By schematising this perspective, we can construct a schematic formula, along the lines of those already used, to be able to symbolically and quickly capture the complex system

we are now introducing. Namely a conception of "*rationality as responding to reasons (RRR):*

> *Intention: If A has decisive available reason (not) to intend to ϕ, then A is rationally required (not) to intend to ϕ.*
>
> *Belief: If A has decisive available reason (not) to believe that p, then A is rationally required (not) to believe that p.*
> (Kiesewetter 2017, p. 162)

Rationality ought to respond to reasons, and these will be reasons to intend something or reasons to believe something. By making this transition, the goal is to be able to maintain the much sought-after normativity of rationality, renouncing the requirements concerned only with the maintenance of coherence between subjective mental states. However, the renunciation is only partial; it is not necessary to completely eliminate the conceptional theoretical baggage that we have worked so hard to prepare. But simply, the use of a capacity to respond correctly to reasons — understood as, or deriving from, the capacity of rationality — allows us to grasp how the requirements of rationality are identified with the requirements of reasons — reasons to believe or understand, whatever they may be.

Thus, "if rationality consists in responding correctly to reasons, then rational requirements could be understood as inheriting both their content and their authority from the content and authority of the relevant reasons" (Kiesewetter 2017, p. 160). Requirements then cease to be a completely separate and disinterested element from reasons. The rational requirements, in their newfound complicity with the reasons in order to constitute a more concrete and cohesive

description of the faculty-rationality perform the function of "verdictive statements not about reasons of a particular kind, but about reasons of all kinds, or reasons of all kinds that stand in a certain relation to an agent" (Kiesewetter 2017, p. 161). However, a clarification must be made in order not to risk leading the conception of rationality, understood as correctly responding to reasons, towards interpretations liable to criticism, such as those produced by Broome[27]. Of all the possible reasons in relation to the rational agent, "only those reasons that are available to an agent must be taken into account" (Kiesewetter 2017, p. 161), where the key word is precisely 'available'.

Every rational agent, engaged in accounting for the motivating force of the reasons that come into contact with him, is characterised by a body of evidence and "for something to be part of an agent's evidence, it is a sufficient condition that the agent knows it" (Kiesewetter 2017, p. 162) . Having reached this point, the focus of the perspective that Kiesewetter is trying to outline with his interpretation of rationality becomes clear. Rationality is to be understood as a capacity, or as constituting a derived capacity, which is that of the correct response to reasons, which lead the subject to believe or understand something on the basis of facts that fall within the evidential field of the performing and deliberating subject. The subject then stands at the edge of a field, of a horizon, and from his position observes, but with a very particular gaze directed at the evidence that the facts enclose:

> *The evidence-relative view: A ought (or has overall decisive reason) to ϕ if, and only if, A has decisive available reason to ϕ.*
> (Kiesewetter 2017, p. 163)

[27] See, Broome 2007, 2013, 2020,

This formulation that Kiesewetter uses to exemplify the concept we have just described not only provides an intuitive description through which to justify a breakthrough in how to understand rationality and its functioning, but also manages to open the door to a dimension of interpretation that, once crossed, leads us closer to the subject-world relationship, which in the ethereal flow of requirements we were in danger of losing.

However, this rapprochement, while effective, and from a certain point of view necessary, contains complications that are rooted in the very foundations of the debate around normativity and rationality. Indeed, we must remember how from the very beginning there was agreement to define rationality as strictly mental, internal and subjective. Such a position implies a consequent separation. If rationality is mental and subjective, what is factual and objective cannot 'internally' be part of it. A separation is established between two spheres of reality whose friction is difficult to resolve. This poses a serious problem that must be resolved in order to be able to justify the position we are defending, which sees rationality as closely related to the factual objectivity of reasons. If the normativity of rationality emerges through its relation to reasons, this Gordian knot must be untied. The solution proposed by Kiesewetter proves to be effective and recalls a fundamental concept that we have already encountered and which had helped us to understand and clarify how rationality had to do with coherence between mental states. That is, the concept that rationality supervenes on the mind. However, we are now trying to resolve the relationship between two apparently contradictory conceptual pairs: that between subjective and objective, and that between mental and factual[28]. Consequently, we must succeed in demonstrating that reasons-responsiveness also supervenes on the mind.

[28] What emerges here is a series of dichotomies that has occupied and occupies a large share of the philosophical debate and that unfortunately cannot be explored as they should be in this place. However, it is necessary to highlight their differences and their relevance at the level of the present conceptual exposition. Subjective means that which intrinsically belongs to the subject from its own point of view, that is, the internal point of view. Thus, we speak of the subject's set of mental states that constitute his or her own conscious cognitive flow. Conversely, objective means reference to the rigid canon of external reality,

To do so, we follow the strategy Kiesewetter calls 'Backup View' and with respect to which: "*whether A has decisive available reason for an attitude depends only on the internal state, even though what these reasons are does not*" (Kiesewetter 2017, p. 171). This perspective, transposed into schematic terms, takes the following form:

> *The backup view: If A's total phenomenal state supports p, and p would—if true—be an available reason for (or against) believing q, then A's appearances provide an equally strong available reason for (or against) believing q.* (Kiesewetter 2017, p. 173)

By elaborating on this issue, we can succeed in simplifying the perspective. The most relevant element within this manoeuvre to demonstrate the co-implication of facts and rationality is the use of the total phenomenal field. The totality of our phenomenal state consists of the totality of factual evidence from outside (perceptual or sensory experiences) and the totality of appearances (or content) produced by our own relationship with facts. Kiesewetter makes this point explicit by mentioning Huemer[29], stating how "introspective states, (apparent) memories, and various intellectual seemings or intuitions" (Kiesewetter 2017, p. 173) are always included in the totality of our phenomenal state. Consequently: "*According to the backup view, appearances provide backup reasons for our primary reasons, which are typically constituted by external facts*" (Kiesewetter 2020, p. 338).

In experiencing facts about the world (primary reasons), therefore, one may encounter different cases in which perceptions of distinct subjects come into

regardless of the possibility of interpretation of the individual object. Thus, one speaks of facts as they are on the basis of their intrinsic value. Therefore, the separation between mental and factual is also unfolded, that is, between what strictly pertains to the subject's own cognitive state and reasons on the basis of the reality of the state of affairs and its own value.

[29] Kiesewetter (2017, p. 172) resorts to the concept of phenomenal conservatism as treated by Michael Huemer, to contextualise and defend its theoretical justification. He also makes explicit reference in the notes to Huemer (2007, 30) and Huemer (2001, 98-115).

conflict with each other. However, there will be appearances (backup reasons) that provide a primitive element of unity that can generate the necessary coherence between distinct subjects. This is because what is decisive for the backup view "is not that the reasons in the [different cases] are equally strong, but only that the reasons support and require the same responses in both cases" (Kiesewetter 2020, p. 338).

The solution regarding how to consider the possibility of 'reasons-responsiveness' that supervenes on the mind therefore consists in showing how "even though our available reasons (i.e. the reasons that are part of our evidence) are not the same [different cases], they support the same responses" (Kiesewetter 2017, p. 171). This unity that is generated by a responsive point of view succeeds in convincing us of a perspective of rationality that corresponds to responding correctly to reasons that has much to gain and little to lose. As Kiesewetter says, in fact:

> *the backup view allows us to have it all: internalism about rationality, externalism about reasons, and rationality as reasons-responsiveness*. (Kiesewetter 2020, p. 339).

3.REASONS

3.1.What is a Reason and why We need One

Following the path that led us to re-describe rationality in terms of reasons-responsiveness, we can recall how (normative) reasons have been described as facts, concerning the external world and also the internal world of the acting subject. Although perfectly useful in outlining the workings of this new interpretative approach to our being rational and our interaction with our surroundings, relatively little has been said about reasons, an element of fundamental importance. Reasons are facts, but in their being facts, how do they behave? What qualities or characteristics do they have? The fact of being a fact does not completely exhaust the nature of reasons, and consequently it becomes essential to delve into their essence so as to better understand the cornerstone of the system that sees them as the basis of our rational behaviour. So, taking stock of the situation, we can say, along the same lines as Rober Audi[30], that in order to have our actions and beliefs justified or simply to be considered sound persons we must,

[30] See, (Audi 2001)

or ought to in our sense, correctly respond to the available well-founded or evidential reasons, and this exact process gives us the meaning of being a rational agent.

With regard to our reasons, considered the basic facts to which we are required to respond correctly, something more is said here. A small word, which may go unnoticed, helps us understand the nature of our reasons and why, regardless of our knowledge on how the mechanism of rationality works, they prove to be necessary. The word in question is 'justified'. To give validity to our actions and beliefs, we must be able to explain why our actions and beliefs are justified. Here, a distinguishing feature of reasons that until now had been left aside emerges. Reasons have an explanatory role; we need reasons to move within the rational dimension, but above all, we need them to make sense of the world. In fact, reasons are often first and foremost 'reasons why', and we need them to understand or explain something.

At this point, the framing of reasons widens and we understand that its constitution is not only based on the normativity they imply, but a dual role is now brought into focus: reasons are "both normative and explanatory" (Raz 2011, p. 14). Let us therefore try to unravel this dual nature and first try to delineate more clearly how reasons behave in their explanatory role. We have said that reasons, as such, provide explanations, but how are we to understand an explanation at this level? The latter can be understood as that set of data, processes and expressions that provide "a (correct) answer to questions about the reasons why things are as they are, become what they become, or to any other reason-why question" (Raz 2011, p. 16). The explanation, then, implies a questioning, a wondering, and every question always implies a relationship between the one raising it and the element that is in question, a fact. We thus understand how referring to a fact as a reason, in these explanatory terms, means referring to "a relation it has to something else: it is a reason why this or that happened" (Raz 2011, p. 17).

To sum up, we can conclude that "Explanatory reasons are so in virtue of their relations to what they explain, and stating that a fact is a reason is stating that it stands in the explanatory relation to what it is a reason for" (Raz 2007b, p. 3)[31].

A fundamental piece has been added to the puzzle, but we must not forget that the fundamental characteristic of reasons, already widely considered and discussed above, is that of contributing a normative element within our rationality. Despite the fact that much has already been said above, it is useful to reopen the question once again and to supplement this new description of reasons in terms of explanatory elements with its sister in normative terms.

In an almost mirror-image of what was said for the explanatory part, we can therefore state that "normative reasons...count in favour of that for which they are reasons. They have the potential to (that is, they may) justify and require that which they favour" (Raz 2007b, p. 5). In general, as seen above, the normative element of reference for reasons turns out to be their implicit motivation. However, Joseph Raz delves even deeper into the discourse and puts it in different terms. For him, what characterises reasons, in their normative guise, is always linked to explanation - as seen above - but in terms in which reason justifies "people's…reactions to certain factors in ways that depend on their awareness of these factors, and on taking those reactions to be appropriate because of these factors" (Raz 2022, p. 128), subsequently leading them to act.

We are already beginning to glimpse the close connection between the normative realm and the explanatory realm, which, as we shall see later, constitutes the comprehensibility dimension of reasons. But before we get there, it is interesting to dwell on a question once again concerning normativity and which once again calls into account John Broome.

[31] This article consists of an earlier preparatory draft of the chapter under the same name that was published within the text *From Normativity to Responsibility* in 2011, and to which reference was previously made.

It is extremely common to find reference in the literature, when discussing rationality, reason and reasons, to the term *pro tanto*. The reasons discussed in general have taken on this nominative description and it has become common to refer to them, in various fields, precisely as pro tanto reasons. However, what exactly is meant when describing a reason as pro tanto? The answer lies precisely in the position and description provided by Broome. For the latter, a pro tanto reason is "a fact that plays the for- role in a weighing explanation of why you ought to, or in a weighing explanation of why you ought not to, or in a weighing explanation of why it is not the case that you ought to and not the case that you ought not to"(Wallace 2006, p. 39).

As Raz rightly points out, Broome's emphasis falls precisely on his understanding of the term 'ought' and the weight he attributes to it. In fact, following what has already been pointed out with respect to Broome's position on reasons and normativity, it is intuitive to grasp how for the latter, normative reasons constitute "mere explanations of why ought-propositions are or are not true" (Raz 2011, p. 23) and how their normativity is exhausted in being such explanations.

In short, Broome is focused on the 'ought', i.e. on a strong sense of normativity that reasons should articulate. According to Broome's perspective, we could say that the element of primary importance is what the term 'ought', which comes first, represents and encapsulates. Reasons then only emerge as a consequence. For example: Suppose we do not 'ought to eat rubbish' because rubbish will definitely make us feel sick. The fact that rubbish will make us feel sick provides an explanation as to why we ought not to eat it and, only as a consequence, provides us with a reason not to eat it —this is because for Broome, the (normative) requirements of rationality come first, which are often mistaken for reasons.

However, the focal element with respect to pro tanto reasons, and which makes them so intuitive and easy to employ, is not so much the close relationship

with ought propositions, but the role with respect to weighing explanations. Considering reasons as part of an infinite comparison of possible options makes it easy to use them in terms of pro tanto reasons precisely because it makes the fact that something is always discarded in the decision explicit. If, for instance, I have conflicting reasons as to whether I should give flowers rather than chocolates to my mother for her birthday, once I opt for one of the two options, the discarded one while remaining a valid reason is simply defeated, precisely because the "characteristic of any pro tanto reason is that it is possible for it to be outweighed" (Wallace 2006, p. 38). A kind of matrix is established in which all possible reasons circulate, all having a certain weight which, depending on the situation, can be evaluated in order to determine which is the correct one to follow.

Apparently, this feature of pro tanto reasons does not cause so many problems, which is why it is generally employed and why it does not constitute an element of tension with the perspective of a rationality that consists in responding correctly to reasons. But for Broome, the question is different, and if one wants to use a terminological element that is part of a certain conceptual perspective, it is correct to make explicit in what terms and to what extent one should employ the aforementioned terminology. In fact, as Raz points out, the weight-related view of pro tanto reasons is simply based on a series of metaphors provided by Broome, which another author may decide to accept or not, but which do not provide a stringent justification. Suffice it to think how it is possible to "form the view that a certain fact is a reason for a certain option, without any view about its strength, or about the strength of reasons of that kind" (Raz 2022, p. 130). What Broome, on the other hand, is keen to justify and argue with more theoretical force is that normative reasons, as mentioned above, constitute the explanation of ought propositions. However, again following Raz, we can say that normative reasons do more than explain ought propositions: "*Normative reasons are facts that have normative bearing or force. They are called 'reasons' because they*

can serve as stepping-stones in reasoning about what to believe or what to do. Deliberating from the reasons that apply to us we become aware of the attractions and drawbacks of options" (Raz 2011, p. 23). In doing so, we are able to grasp how the normativity of reasons is not an element that exists solely due to the presence of ought propositions, but something that is contained within the reasons themselves as elements endowed with motivating value. The ought propositions, therefore, are merely "one of a variety of propositions whose truth conditions include the existence or absence of some normative reasons or others" (Raz 2011, p. 24).

Having clarified this important terminological issue, we will continue to simply use the term 'reasons', always bearing in mind, however, how these can be considered to be part of a comparison of different weights in cases where the situation occurs.

Continuing instead with the attempt to provide a more accurate analysis of reasons, we can finally move on to that connection between the normative and explanatory realms we mentioned earlier. Reasons provide explanations and motivation for action, and it is precisely the link between these two dimensions that constitutes the description of reasons in terms of a *normative/explanatory nexus*. But what exactly does this nexus consist of and what does it require? It requires that "the potential explanatory role of facts that are normative reasons depends on and presupposes their normative force: it has to be that they can explain because they are normative reasons, and by being normative reasons" (Raz 2011, p. 28). This is because, following the structure of the nexus, every normative reason must be able to contain within itself and provide an explanation[32] "of the action for which it is a reason, as a fact that, being recognized for what it is, motivated the agent to perform the action, so that the agent guided its performance in light of that fact" (Raz 2011, p. 29). Going on, then, we can state that "nexus requires

[32] And even if the agent in question is unable to provide an explanation, this does not necessarily and definitively imply its absence; sometimes subjects simply get confused, cannot fully realise what is happening, are conditioned or are in altered states, but an explanation can always be found retrospectively — if not immediately, then possibly in the future.

that reasons can explain agents' beliefs or actions or emotions in a special way: In their exercise of their rational powers, agents are led to awareness of the facts that are reasons qua reasons, and to rational reaction to this awareness" (Raz 2011, p. 36).

Having established the structural connection of reasons within a nexus that co-implicates normativity and explanatory functionality, we can take a final step towards clarifying the reasons with which we are involved every time we act, believe, intend or feel something. In their being part of a swirling nexus, reasons are qualitatively distinguished precisely in relation to what they represent. A distinction that can be made explicit in the terms of A) standard or B) non-standard reasons. Where A) standard reasons are constituted as those that "we can follow directly" (Raz 2009, p. 40) in order to pursue an action, intention etc., whereas B) non-standard reasons "for an action or an attitude are such that one can conform to them, but not follow them directly" (Raz 2009, p. 40).

This last distinction allows us to glimpse a further element of characterisation of reasons that forms the basis of the different theoretical approaches to them, namely, that between practical and epistemic reasons.

3.2.Epistemic Reasons

So far, we have spoken of reasons to act, believe, understand and feel indistinctly as all being part of one large organic group, where the only major distinction emerges in whether they can be followed directly or not. But the story is more complex than that. Believing something, believing that this something is

true and acting, even only physically, on the basis of this something seem intuitively not to be the same thing. Simply consider the fact that believing in the truth of something on the basis of sound reasons does not compel us to take any particular action, but simply brings clarity to our knowledge of what makes sense to us. A separation is established here between believing and doing, between beliefs and actions, between the epistemic and the practical. In other words, "reasons (taken together) determine the ways people should relate to the world, in their beliefs, emotions, actions and the like. But epistemic and practical reasons do so in fundamentally different ways" (Raz 2009, p. 46).

And the reasons that deal with the truth, or meaningfulness, of our beliefs take on the very name of epistemic-reasons on the basis of their close connection with the knowledge they imply. But let us try to provide a more precise definition:

> *Epistemic reasons are reasons for believing in a proposition through being facts which are part of a case for (belief in) its truth (call such considerations 'truth-related').* (Raz 2009, p. 37)

In attempting to reach a point regarding the truth or otherwise of a proposition, therefore, epistemic reasons are guided by a single purpose intrinsic to them, namely the "determination whether the belief for which they are reasons is or is not true" (Raz 2009, p. 41).

Epistemic reasons are thus delineated as the kind of reasons that can provide us with an explanation regarding the condition of our beliefs, or beliefs in general, without calling into question a unique and decisive motivational element that tells us that we ought to do something in particular. Moreover, this nature consolidates the position expressed regarding pro-tanto reasons. In fact, it becomes difficult to speak of pro-tanto epistemic reasons at a time when the latter, being only interested in establishing a statute of truth, turn out to possess

a “value-independent character” (Raz 2009, p. 44). Epistemic reasons being in fact unrelated to the necessity of leading to a particular action, but being only interested in establishing a statute of truth, are not to be weighed within a practical framework. No weight is presented with respect to which one epistemic reason is truer than another. An epistemic reason is such if it is the determining reason for truth. A truth that simply is such as such and not because it is more or less true than another. Therefore, a perspective such as that of pro-tanto reasons fails to find justification in the epistemic horizon, where reasons do not compare each other to find the best one but weigh each other to find the correct one.

3.3.Practical Reasons

What we have mentioned as 'practical reasons', on the other hand, represent a completely different aspect of the rational life of an agent. First of all, we can define practical reasons as those reasons that, as facts, “constitute a case for (or against) the performance of an [particular] action” (Raz 2009, p. 37). It is evident how this particular type of reasons links the deliberative process with the particular enactment of an action. The practical description of these reasons signifies precisely this, i.e. the implicit ability to motivate a particular course of events on the basis of the value the reasons bring to the decision-making process. And it is precisely at this level that the oft-mentioned metaphor of weighing different reasons takes on its appealing connotation. When a rational agent deliberates on the performance of a given action, he must therefore respond to a series of reasons, practical reasons, that constitute the body of facts on the basis of which he chooses one course of events over another.

This choice implies a fundamental characteristic regarding the particular type of practical reasons under consideration here. That is to say, these are sufficient in order to make a particular choice or action. In other words, at the moment of the deliberative act, practical reasons always constitute a sufficient basis through which to conclude the decision-making process and carry out an action, whereas the same cannot be said for epistemic reasons[33].

With respect to what was said earlier, we can thus establish this general distinction between the two types of reasons: practical reasons constitute a sufficient element within the nexus to be able to determine what we ought to do, whereas epistemic reasons, although they may well fall within the body of evidence and constitute an element capable of supporting one option rather than another, do not in themselves necessarily constitute a sufficient condition for determining whether to carry out a course of events.

To summarise then, we can state that "the basic difference between practical and epistemic reasons is that practical reasons, taken together, determine what and how, in light of the value of things, we should change or preserve in ourselves or the world. Epistemic reasons do not. They determine the way our beliefs should adjust to track how things are[34]" (Raz 2009, p. 46). Accordingly, practical reasons emerge as the most 'concrete' part within our responding to reasons, and thus being rational. A type of practical, concrete reasons that determine a "particular mode of conduct: an act, activity, or omission" (Raz 2022, p. 132).

[33] This is because, with respect to what we said earlier, epistemic reasons allow us to reach a determined position regarding truth and knowledge, but having reached that position they add nothing about our motivation whether, on the basis of that truth, to act or not to act with respect to an ongoing course of events.
[34] They are only evaluative in a certain way.

4.The Playground of an Open Debate

4.1.Theoretical Rationality

If rationality consists of responding correctly to reasons, and some of those reasons are epistemic, then rationality that responds to this particular type of reasons can be called "theoretical". In this section I will be concerned with explaining what theoretical rationality consists of and how it works.

In an attempt to better delineate the nature of the reasons that constitute the essential facts against which we are held to account correctly in our rational being, we have provided a fundamental distinction between what we call practical and epistemic. These different reasons assume a distinct, if somewhat complementary, position towards the rational life of each individual. And as their position is different, so too must be the rational structure they underlie when, in accounting for them, we take them on as fundamental elements of our own rational process. We can therefore say, more simply, that responding to reasons described as epistemic rather than practical will also colour rationality in a different shade. Thus, in our responding correctly to reasons, determined to lead us towards the formation of true beliefs, what distinguishes us is a rational process of a theoretical type, whereas in responding to reasons that motivate us to the

concrete attainment of a predetermined end, what distinguishes us is a rationality of a practical type. It is therefore clear how "the distinction centers on the contrast between the rationality of cognitions, such as beliefs, in virtue of which we are theorizing beings seeking a true picture of our world and, on the other hand, the rationality of elements, such as actions, in virtue of which we are practical beings seeking to do things, in particular to satisfy our needs and desires"(Audi 2015, p. 144).

The argument seems to be quite intuitive and the division of reasons into different types seems to consequently generate different types of rationality. However, one should not get carried away and reach hasty conclusions. Rationality does not find itself split into two completely separate spheres. Practical and theoretical, in this sense, must be identified as a qualitative distinction that emerges with regard to the goal that a single rationality sets out to achieve, whether this be moving towards the production of knowledge or moving concretely in the world. This fundamental consideration regarding the unity of a rationality that, as mentioned above, is coloured by different shades, but does not break down into distinct realities, also allows us to put to rest the need to somehow prove the supremacy of the practical over the theoretical, or vice versa. It is not necessary to derive one of the two declinations from the other. As we have seen for the explanatory/normative nexus, the reasons work together. The normativity that a process of responding to reasons implies in the attempt to perform an intentional action, implies in the body of evidence of the rational agent epistemic elements capable of providing an explanation regarding the decisive reasons called into play by the course of events. Just as any normatively performed action can always retrospectively provide an explanation of why it was performed. We thus understand how "theoretical and practical rationality do not differ with respect to the propositions that they are concerned with. They differ with respect to the kinds of attitude that are in question—(a) belief in the case of

theoretical rationality and (b) intention or decision or preference in the case of practical rationality" (Knauff and Spohn 2021, p. 138).

Having made this important clarification, however, we cannot forget that, although part of a nexus, the reasons outlined above have their own characteristics and limitations. Therefore, rationality in its different declinations will also imply differences and peculiarities in the various processes. Let us therefore begin to understand these different characteristics by considering what we have called theoretical rationality, describing it more precisely and providing a more comprehensive explanation.

A key element in providing this explanation is the concept of belief, since "our belief system represents the world—including the inner world of "private" experience—to us. Moreover, it is beliefs that, when true and appropriately grounded, constitute knowledge. [And] knowledge, in turn, is uncontroversially taken to be a "goal" of theoretical reason" (Audi 2015, p. 144). If theoretical rationality focuses on beliefs then, following the same line of logic as Audi, the fundamental point becomes "to concentrate on conditions for the rationality of belief" (Audi 2015, p. 145).

Let us continue by providing a standard definition of theoretical rationality on the basis of what has been said about the reasons for which it is required to answer correctly:

> *Theoretical rationality is the rationality of beliefs and other belief-like or belief- involving phenomena (such as credences, inferences, and the like) — is about the rational justification of beliefs, inferences, and explanations, or of our epistemic states in general.*
> (Knauff and Spohn 2021, p. 10, 138)

Theoretical rationality engages in the attainment of a meaningful justification of our beliefs in such a way that their truth can be established. Theoretical rationality in this process involves the formation of a persuasiveness regarding the truth of those propositions constituting beliefs or belief-involving phenomena "that are the conclusions of arguments that [a subject] would regard as likely to be truth preserving were [the subject] to be reflective and that in addition have premises that [the subject] would uncover no good reason to be suspicious of were [the subject] to be reflective" (Foley 1987, p. 5). Consequently, as we did for normativity with regard to the 'ought', it seems appropriate to describe theoretical rationality in this particular context in terms of sources. Sources that can provide a solid basis for the attainment and generation of that persuasiveness.

We have understood how beliefs and their formation in order to achieve an ultimate goal such as knowledge, and specifically true knowledge, constitute the basis on which to theorise an image of the world that makes as much sense as possible. And in order to achieve this image, each individual appeals to various sources that serve as the epistemological basis on which the theoretical part of our rationality rests. Following Robert Audi's work, it is possible to identify the basic sources[35], the indispensable ones, that constitute the theoretical unity of theoretical rationality: perception, memory, consciousness and reason.

Let us therefore try to set out these basic constituent elements as best we can and then provide an overview.

Perception: Perception, as a source for theoretical rationality, constitutes the experiential substratum against which, interacting with the world, we can construct our body of evidence. The latter provides the range of empirical information on the basis of which, through deliberation, we construct the beliefs and

[35] "I take it that a source of (theoretical) rationality (or justification) is roughly something in the life of the person in question — such as perception or reflection — that characteristically yields rational beliefs" (Audi 2015, p. 146).

knowledge necessary to understand that "if one proposition entails a second and the second entails a third, then if the third is false, so is the first" (Audi 2015, p. 146). Perception thus constitutes the raw material on which to ground the basis of the logical possibility of a self-evident deliberative structure, and this is precisely on the basis of the perceptual material that serves as corroborative material. At this level perception turns out to be a source for the epistemic part of our rationality, since it determines a system of physical elements and logical-experiential parameters on the basis of which to build a solid truth. Through perceptions we then arrive at the formation of perceptual beliefs.

Memory: Turning to memory as the source of theoretical rationality, we can state that "if, in speaking of perception, we are talking about a capacity to perceive, in speaking of memory we are talking about a capacity to remember" (Audi 2015, p. 148). Robert Audi points out, however, that *memory* does not exhaust its role as a source merely when it allows the formation of a true memory through remembering. Within our remembering, a diverse range of cognitive attitudes are activated, such as: "recalling, which entails but is not entailed by remembering; recollecting, which is similar to recalling but tends to imply an episode of (sometimes effortful) recall, usually of a sequence or a set of details and often involving imagery; and memory belief, which may be mistaken and does not entail either remembering or even recalling" (Audi 2015, p. 148). Thus, it is possible to infer that this array of cognitive elements, in their coexistence within the act of remembering, work together to produce a form of knowledge; but knowledge of a particular kind. At the moment we remember, the object of our recollection takes the form of a certain proposition which implies our knowing it, not through the relationship with something else that has contributed to generating that proposition and knowledge, but simply through the fact that we are

remembering it. What is generated is in all respects 'our' knowledge, which, however, does not exclude the fact that in order to be so at the moment 't' of recollection, it must have previously been acquired through other forms of information acquisition such as the aforementioned perception. We can therefore define memory as an: "essential source of knowledge and a basic source of justification. In the former case it is preservative, retaining knowledge already gained; in the latter it is generative, producing justification not otherwise acquired" (Audi 2015, p. 149).

Consciousness: With regard to consciousness, the reason why it should be considered a source of theoretical rationality is intuitive, especially given what has been said about perception and memory. Consciousness constitutes, for rationality[36] the fundamental basis for other sources to even make sense. Awareness of one's own conscious condition makes possible the predisposition of the self possible in order to perceptually experience the external world, as conscious subjects, and at the same time the internal world with respect to which memory draws material. Consciousness represents the condition of possibility in order to be able to assert that one is speaking of 'one's' knowledge and belief on the basis of 'one's' experience or recollection. Consciousness is thus delineated as the introspective and transparent condition that allows the active identification of the presence of a cognitive element existing in 'our' mind, such as rational belief.

Reason: With regard to reason, it constitutes a basic source as it represents the entire cognitive structural system capable of generating the possibility of a reflective capacity such as reasoning. Reason, like memory, encompasses a series of constituent elements that define it such as reflection, understanding, intuition

[36] Here I use rationality in its general sense, encompassing therefore both the practical and theoretical spheres.

and reasoning[37]. Reason as a source encompasses the set of mental attitudes capable of leading the subject towards "an adequate degree of understanding" (Audi 2015, p. 151) of the propositional structures that constitute beliefs, and thus contribute to the production of knowledge.

We can then summarise what has been said by providing a more organic description of the set of sources that form the basis of a theoretical rationality interested in the production of knowledge through the recognition and justification of true beliefs. Theoretical rationality is based on a conscious faculty of reason which, through reasoning, reflection and intuition, processes the experiential material divided between perception and memory; thus laying the foundations for a complete epistemic system capable of, collecting, processing and making sense of information and beliefs. However, we must add something in order to be able to give the full picture of theoretical rationality under consideration here. The basic sources analysed constitute the generative elements that provide the condition of possibility for rational activity with regard to beliefs, knowledge and truth. However, this basis is merely the input of an inferential process that has precisely the production of inferences as its specific output. The sources, then, allow us to enact theoretical rationality, but its conclusion becomes explicit only with the attainment of an expression of these true beliefs and the knowledge they imply. This occurs through the production of inferences on the basis of sound reasons that lead to the formulation of propositions. These find explicit linguistic expression when they become part of a discourse forming part of the external world involving the rational subject, or of an internal conscious discourse forming part of the subject's internal world.

However, it is correct to point out that there may also be cases in which the subject is possessed of basic, i.e. non-inferential[38] beliefs, based on a "certain

[37] See (Audi 2015, p. 150)

[38] Audi gives the example of an inferential belief that is recalled from memory after a long period of time,

kind of responsiveness to experience" (Audi 2015, p. 160). But this clarification is not a problem for the description of theoretical rationality and its functioning that we have provided, since "one's system of beliefs, may...change greatly over time [and] A belief that is non-inferential at one time may be inferential later, when one has acquired a premise for it" (Audi 2015, p. 160). To conclude, theoretical rationality "understood in an overall sense...requires the kind of well-grounded-ness of beliefs that is possible only given sensory and reflective experience as a basis; but an integration among the beliefs so grounded and the logical capacity to build inferentially beyond them are also needed" (Audi 2015, p. 167).

4.2.Practical Rationality

Although theoretical rationality constitutes a very important part of our understanding of rationality in global terms, it is practical rationality that is most often referred to by the authors mentioned so far. Why is this? Although the theoretical part of rationality constitutes the fundamental process through which we accumulate knowledge and clarify or revise our beliefs in order to obtain a true picture of the world — recovering what has been said about the distinction between practical and theoretical reasons — it tells us little about why we act in a certain way rather than another. The 'epistemic' turns out to be a key element within the consideration of what may or may not be considered a decisive reason within our body of evidence that can direct us towards a certain means or end, but it does not intrinsically constitute the fundamental part for the purpose of describing our decision-making dynamic. This dynamic is the competence of

consequently implying a forgetfulness of the premises that constituted it

practical rationality, which must respond correctly to practical reasons in order to determine and justify action, regardless of the truth or otherwise of the underlying beliefs. In this regard, we too align ourselves with authors who, in discussing rationality, have mainly referred to its practical dimension in an attempt to better understand what we are required to 'do' in order to be considered rational during our decision-making process, or more simply during the everyday events that constitute our lives as agents.

Theoretical rationality will thus be set aside, leaving room for a consideration of rationality in practical terms, still considering these two parts as, in any case, intimately connected. A connection that allows us to separate ourselves from the general view of rationality as divided into several heterogeneous realities and that will allow us to take a step forward, in the last chapter, towards a renewed understanding of rationality itself.

Let us therefore begin by providing a simple and general description of what we can understand by practical rationality:

> *Practical rationality is the rationality of the practical attitudes — like intentions, decisions (or choices), and preferences — that are directly executed in action.* (Knauff and Spohn 2021, p. 138)

Described in these terms, practical rationality seems to have an axiological[39] presupposition at the basis of its constitution. This is because, in its motivation of a particular action on the basis of decisive reasons, practical rationality constitutes the cognitive process in order to succeed in pursuing the set action in the best way possible, thus exhibiting a sensible directionality towards values and goals. It is precisely through the realisation of this practical condition of rationality un-

[39] See (Niemczuk 2019).

der analysis here that the radical distinction from the previously defined structure regarding the theoretical becomes apparent. The practical here examined "In contrast to theory, or even to the process or operation of theorising, it is a sequence of changes not only related to thought (and even less is it a system of claims), but it consists in real changes that modify the real course of events" (Niemczuk 2019, p. 58).

But as we have made clear, this distinction is not intended to prove a radical separation of two different types of activity that never want to meet. In fact, even for the practical part of rationality, there must be sources, and some of them point out that the constitutive basis of both shares at least a series of elements capable of showing co-participation in an overall cognitive structure. The practical, as it has been described, for example, is indeed "a series of changes in the real world, but initiated and directed by consciousness" (Niemczuk 2019, p. 58). Consciousness, which as such, we have described as a fundamental source of theoretical rationality as well, and which — this becomes now clear — constitutes a fundamental source of rationality in general. Specifically, however, with respect to the practical, our being conscious is delineated as being responsive to one's emotional and volitional states[40], recognising one's desires as one's own and identifying the inferential relations between objects and emotions including their underlying instrumental relations.

Let us, however, be more precise and outline, as has been done for theoretical rationality and its sources, some fundamental, or basic, criteria for practical rationality. To do so, it is useful to take advantage of the groundwork offered by Niemczuck. The latter, having the need to provide a justification[41] for the content of practical rationality, outlines a set of five basic criteria that should be able to determine its complete and defined structure:

[40] See (Niemczuk 2019, p. 58)

[41] Here I list the content elements of practical rationality, which according to Niemczuk require a determined structure based on the criteria we are about to analyze:
(a) the content of the first practical-axiological premise;

1) The criterion of the affirmation of being: It is described by Niemczuk as "a positive primaeval decision, in which the subject, affirming his or her own freedom and rationality, also affirms the existential conditions of his or her existence" (Niemczuk 2019, p. 64). This state, in which the subject through its rational condition affirms itsself, constitutes in a different way that consciential requirement that was previously highlighted when we talked about theoretical rationality and its structure. Through the practicality of rationality, a fundamental criterion is the affirmation of one's intentionality as an agent. This occurs precisely through the visible enactment of the action itself, in its evident practicality, as it makes visible a course of events whose organization turns out to be the result of a rational process. A process which, insofar as it generates a cause-effect relationship having at its center the subject and his action, is to be defined as practical. To be highlighted, therefore, is the dynamic decision-making of the subject who, through his practical acting on the basis of a rational structure, makes explicit the will for a certain course of events, establishing himself as a practical agent freely directed toward ends, values and desires. The basic criterion is thus the necessity of an affirmativity of the subject as part of a mechanism that concerns its implication within a process guided by a cognitive structure aimed at the achievement of an objective that can be such insofar as it belongs to a subject in action.

2) The criterion of [self-]criticism and self-knowledge: This criterion is expressed in terms of the necessary criticality with respect to the "legitimacy of one's spontaneous desires" (Niemczuk 2019, p. 64). The self-knowledge mentioned in the criterion thus represents the necessary reckoning with the validity, or not, of the desires that drive a rational agent towards a practical action

(b) the contents of psychological desires,
(c) the contents that create descriptive knowledge about the world – including the descriptive content of the subject's self-knowledge. (Niemczuk 2019, p. 64)

useful for the achievement of a given end, thus also providing a retrospective justificatory element. The criterion is fundamental because, according to Niemzuck, the personal formation of a desire does not ipso facto determine the rationality of the desire itself, but the latter can be "considered rational [only] as a result of rationally checking the connections that exist between its content and its general surroundings" (Niemczuk 2019, p. 64). This criterion represents a necessary critical filter in order to evaluate and justify the desires underlying the causal chain constituting the practically rational action, and this through a structural network whose coherence is based on the relationship between the decision in action, the content of other desires, co-present with the decisive one, and the knowledge — in this case also theoretical — of the reality in which the agent finds himself embedded.

3) The criterion of non-contradiction: The non-contradictory nature mentioned in this fundamental criterion follows to some extent the fundamental coherence required in every level of rationality considered so far. In this particular case, however, the non-contradictory nature falls once again on the content of the desires that underlie the decision-making process of rational subjects. A non-contradictory nature that must be referred back to what was said in the last lines of the description of the previous criterion. In order to be considered rational, and thus form a well-founded basis for the entire process, a desire must not contradict, to borrow Niemczuk's words, the content of the decision comprising the desire and its directionality towards a particular end. It must also respect and not contradict the content of the other (rational) desires that constitute an alternative to the one on the basis of which the decision finds its final formulation. And finally also the content of the other possibilities, in general, in respect of which a course of events in order to achieve the end set within the rational process can be determined. In short, what is outlined is a

necessary absence of contradiction within the entire procedural structure of practical rationality, delineating a necessary inferential, substantive and causal coherence.

4) The criterion of realism and effectiveness: The realism implied in this fourth fundamental criterion winks at the perceptive source mentioned for theoretical rationality. With respect to what has been said about non-contradiction and the necessary conditions that a desire must fulfil in order to be considered rational and thus fall within the practical process of rationality, the effectiveness mentioned here establishes a necessary primitive condition that the agent must respect during all parts of the process itself. That is, every single aspect of our practical rationality and the elements it encompasses "should be shaped with a significant participation of the descriptive knowledge of the real world" (Niemczuk 2019, p. 65). Which means that the content of desires, of the fundamental decision underlying the directionality of our action, must be shaped by a real and concrete conception of the context in which the rational process takes place. One must, in simpler words, refer to the rules of the world in which the subject is placed so as to be able to distinguish "real possibilities from real impossibilities" (Niemczuk 2019, p. 66). As Niemczuk points out, it is on the basis of a correct understanding of the reality in which we place ourselves that practical rationality can function properly. For it is on the basis of real knowledge of the world that the effectiveness of action can be probabilistically calculated, and against which the course of events can be correctly predicted and adjusted. It is the limits of reality, which separate us from fantasy, that allow us to be properly rational in a practical manner, discarding unrealisable desires and promoting the most well-founded reasons.

5) The criterion of the hierarchy of values: With regard to the fifth and final

criterion, I would like to detach myself from Niemczuk's interpretation, albeit retaining the nomenclature for the criterion used by him. Niemczuk summarizes the criterion of the hierarchy of values in terms of a simple non-superiority of the values of bodily life over those of spiritual life, but he stops there. Niemczuk is only interested in a hierarchical setting of values that best fits into his conception of practicality strongly declined in teleological terms. I believe that this perspective, however correct, does not fit, comprehensively, the need to express a fundamental criterion of the 'strictly' practical part of rationality. Rather, a hierarchy of values makes sense as a criterion for practical rationality, especially with respect to the previous criteria, if it is taken as a necessary value disposition that can and should hierarchically motivate one decision rather than another, one desire rather than another, one reason rather than another. Not simply a retraining of spiritual values over bodily values for the purpose of achieving our well-being.

In short, what I argue in contrast to Niemczuk is that, within the framework of decision-making and reasoning, there must be a hierarchy of values to which we are held accountable, and against which the self-aware and critical subject must be consistent. For if the practical part of our rationality is concerned with determining the best way in which we can orient ourselves with respect to our goals, a fundamental criterion for rationality itself must be to be able to account for and integrate the faculty of orienting ourselves among the many values[42] that constitute the decisive practical reasons with respect to which we are required to respond correctly.

Thus, as with theoretical rationality, we have been able to identify basic and fundamental criteria for determining the limits of possibility within which

[42] I also believe that it is precisely this fundamental criterion, which is defined as the intrinsic capacity of practical rationality to recognise a hierarchical value order, that favours the prospect of a definition of reasons in the terms of pro-tanto reasons. Thus contributing to the formulation of the metaphor of a weighing between different reasons and values.

practical rationality operates and is constituted. What has been erected are the foundations of the complex practical structure of the rational agent, which through this structure acts and operates in the world. However, another element of similarity must be pointed out with respect to the theoretical counterpart of rationality. With regard to the practical sphere too, the structure established in the causal relationship between decision, desire, content and action represents an inferential arrangement that traces the input-output relationship described with regard to theoretical rationality. What changes is the nature of this relation. Where for the theoretical part the inferential relationship gave rise to propositions capable of explicating and justifying the truthful material of beliefs, here for the practical part the inferential relationship gives rise to propositions through which a course of events is justified, explicated, and above all affirmed on the basis of values, means and desires. Even for the practical part, therefore, there must be the possibility of linguistically explaining the reason for a given action and the process through which it is realised[43].

It seems that our attempt to provide a description of practical rationality in terms of its responding correctly to practical reasons on the basis of fundamental criteria that constitute the structural conditions of possibility of practical rationality itself has been successful. However, an element repeatedly mentioned in the process that led us to the formation of this description is not without its problems. It therefore becomes necessary to examine practical rationality as we have outlined it, uncritically, through one of its fundamental points that is generally taken for granted. I am referring to the concept of 'desire'. Practical rationality, as we have seen, orbits strongly around desires. It is the latter that constitutes, in line with the fundamental decision that directs us towards a

[43] J. David Velleman helps us to better understand this relationship of similarity and diferrence with respect to propositions that are generated between the different nuances of rationality: “Desire takes its propositional object as representing faci-enda-things that aren't the case but are to be brought about. By contrast, belief takes its propositional object as representing facta-things that are the case and in virtue of which the proposition is true” (Velleman 2013, p. 707).

course of events, that motivates means and ends. It thus seems that a circle somehow closes, as what we have said about the perspective of rationality provided by Weber should resonate.

On the basis of the philosophical tradition, starting with Hume and the fundamental role that this author attributes to drives and desires, going through Weber and his conception of a self-interest rationality based on the calculation of the means-ends relationship in an attempt to satisfy one's interests and desires, and arriving at the more recent authors who have been quoted in an attempt to provide a more accurate description of rationality, we realise that we have not strayed that far from the very tradition we have attempted to renew.

Practical rationality ends up being bound to a subjectivity that sees the attempt to realise its desires as its fundamental connotation. Desires that drive action, motivate it, and even justify it. This approach, however, raises quite a few problems, given that, assuming what has been said is correct, it would seem that, as Velleman[44] says, the only element capable of qualifying action and the practical process that constitutes it resides in the antecedent inclinations that determine it, that is, the subject's desires and his or her disposition to desire. The moment one calls into question the subject's preferential attitude, i.e. his or her personal capacity to desire and thus initiate the entire practical-rational process, one ends up creating a dichotomy. A dichotomy that concerns a substantial separation between what we can call 'internal' and 'external' reasons[45]. Where the "'internal' reasons are those which count as reasons for someone only by virtue of his antecedent inclinations; [while the] 'external' reasons are those which count as reasons for someone independently of his inclinations" (Velleman 1996, pp. 695-96).

A rupture [46] is established through practical rationality between the

[44] See (Velleman 2000)

[45] This terminology was introduced by the moral philosopher Bernard Williams. See, *Moral Luck: Philosophical Papers 1973-1980*, chapter 8.

[46] A rupture that is played out on the level of reasons and that will be more fully explained in the next

internal world of the desiring subjects and the external world in which their actions take place. A fracture that extends to another fundamental element mentioned among the core criteria of practical rationality, namely that of value. Value that now splits between a hierarchy divided into what has value for us on the basis of our desire and what has value in the world as desirable.

We can conclude, therefore, that we have been able to provide a general picture of practical rationality by delineating its boundaries, while highlighting critical elements that need to be resolved. The aim now, therefore, is to unravel these critical elements by trying to answer the question: is our rationality a desire-based rationality?

4.3.Derek Parfit

A key author who has dealt precisely with challenging the question with which we closed the previous section is Derek Parfit. With the work begun in the text *Reasons and Persons* and continued through *On what Matters*, Parfit has been occupied precisely with investigating this common position that identifies desires as the fundamental element capable of generating our reasons, to which we are obliged to respond, and in relation to which agents direct themselves

section. However, it will already be useful to provide the tools to identify what in the debate takes the form of a radical distinction between internal and external reasons, hence between internalism and externalism. Useful in clarifying the distinction is the reference to (Dancy 2004, pp. 15-16): "*Internalism is a view about normative reasons, and it holds that an agent A only has a good reason to if, were A to know all the relevant facts, and deliberate rationally, A would be motivated to ϕ. we could more snappily express internalism as the view that A only has a reason to ϕ if A would be motivated to ϕ in condition C. Externalism about normative reasons is the claim that it is possible to have a good reason even when one would not be motivated accordingly in condition C. Internalism and externalism, are views about the relation between good reasons and motivation. Internalism, understood as above, amounts to a motivational constraint on good reasons; something can only be a good reason for me if it is related to what I would want if I deliberated rationally and knew the relevant facts, starting from where I now am. Internalism therefore specifies a necessary condition on normative reason*".

towards their own ends. However, through a complex and well-argued series of observations, Parfit will guide us towards a fundamental point with which we will also sanction our own conclusion on the question of desires. That is, that they are indeed a part of our motivational set-up, but they do not in any radical way define the completeness and totality of our rational process on the basis of which we practically act.

But let us try to retrace together, synthesising and explicating the path that Parfit has paved, in order to make this important conclusion explicit. This will not only allow us to depart from a tradition and common conception of rationality that sees it bound to the subjective and internal drives of the subjects, but also to positively produce an alternative capable of providing a coherent basis for a common conception of rationality that will leave room for both desires and external reality; shaping once again a global conception of rationality that includes desires, values, reasons, but above all beliefs.

The starting point lies in what Parfit defines in terms of Self-interest Theory, i.e. a theory of rationality that sees a fundamental end for every rational agent in self-interest. An end that Parfit makes explicit in these terms: "*the outcomes that would be best for himself, and that would make his life go, for him, as well as possible*" (Parfit 1984, p. 3). Already from this preliminary definition one can guess what the next step might be. That is, if all rational agents are rational on the basis of a theory that ascribes to them the common goal of conducting one's life in the best possible way, what will the best instrument to achieve this imperative goal be? Following on from this fundamental point, what is established is a hierarchical subdivision between an ultimate end, i.e. that the life of the rational agent should go as well as possible, and a series of instrumental ends, i.e. those means forming part of a causal chain through which the ultimate end can be achieved. Means that are constituted as the fundamental desires that should drive the rational agent, motivating him in each step of the instrumental causal chain, to the

achievement of the ultimate goal.

What seemed to be the correct theory of rationality, i.e. the self-interest theory, changes and finds its fundamental pivot in the concept of instrumentality. The mechanism of the causal chain just described provides the conceptual basis for a renewed conception of rationality that also sees desires at the centre of its proper functioning. This new theory takes the form, following Parfit, of a Present aim theory, which bases its explicitness around the instrumental selection of the means necessary to satisfy what is the momentarily present desire at the moment of choice. All supported by a deliberative counterpart that establishes the cognitive premises, with respect to the body of evidence, capable of supporting the proper functioning of the instrumental process in order to achieve the present desire. The new theory of rationality outlined here maintains the centrality of desire as the main element for the purpose of explicating the decision-making mechanism of the acting subject, while specifying how the latter is each time involved with a single present desire that must be fulfilled, within a chain consisting of individual points. In contrast to self-interest theory, which supported a general ultimate goal, present-aim theory narrows the circle by providing a justification for practical rationality on the basis of a precise temporal case history, i.e. the desire present at the specific time 't' in which the decision intention is formed.

To repeat what was said at the end of the previous section, the value that is made explicit here is a value based solely on the present desires of the individual acting subject, a value therefore totally subjective and internal, founded on the individual process of desire formation on the basis of what the subject considers desirable. A value that then consequently determines the entire process that, to be defined as rational, must lead to a correct response to the reasons — in this case instrumental[47]. Which must prove to be functional to

[47] What Parfit outlines through the shift from self-interest to present-aim theory is an understanding of the strong instrumental connection between the subject's 'present' desire and what is necessary for its attainment;

achieving the end outlined by the desire that the subject has formed. All this, however plausible, as already mentioned, constitutes a serious problem, for us as well as for Parfit. For pushing all value to the side of personal desires leads to a radical break between the inner and outer worlds of the subject. We thus end up not giving the proper consideration that the objects of our desires, as such, deserve on the basis of the value they embody.

Let us therefore continue on our path in an attempt to reconcile this rupture. It is possible to start from a fundamental distinction that Parfit provides, not only to intuit the depth between the separation we have already outlined, but also to set the starting point for its possible reconciliation. Parfit explains how there are two categorical groups with respect to which one can speak of practical reasons: The first (1) consists of the set of facts-reasons that motivate certain desires and ends, also motivating the choice of the means necessary to achieve them. These reasons-facts emerge and find their meaning on the basis of the "objects of these desires or aims. We can therefore call such reasons object-given" (Parfit 2013, p. 45). Thus, the perspective of these reasons, if indulged in, leads the rational agent to identify himself as an objectivist about reason, and the objective reasons identified by this theory are identified by Parfit as value-based. Through this first characterisation, the description of the value that seemed to be missing in the self-interest and present-aim theory is generated. An objective value that is formed on the basis of the object that can provide a valid reason on the basis of facts, i.e. a valid reason on the basis of the intrinsic value of the object of our desires, which as such is "relevantly good, or worth achieving" (Parfit 2013, p. 45). A value therefore that is located in the object world, external to the personal sphere of the acting and desiring subject. To summarise then: "*On desire-*

'here and now.' The subjective value of the present aim thus justifies an instrumental present value within the rational dynamic intent on the consideration of the best course of events in order to extinguish the agent subject's desire. What matters, then, at the level of reasons are only the subjective impulses relating to the subject's present aim and the instrumental valoraial consideration of what it is necessary to do in order to attain one's end.

based theories, our reasons to fulfil these desires are provided by these desires. On value-based theories, these reasons are provided, not by the fact that we have these desires, but by the facts that give us reasons to have them[48]" (Egonsson 2018, p. 19).

With regard to the second (2), what Parfit does is to rework and summarise what has already been explained with regard to present-aim theory. In this case, as already explained, reasons to act are formed on the basis of present desires that the subject is intent on satisfying, once all factors relevant to the choice and its attainment have been considered. Therefore, "Since these are all facts about us, we can call these reasons subject-given" (Parfit 2013, p. 45); and if we go along with this perspective, we can call ourselves subjectivists about reasons that support some form of subjective theory.

The aforementioned radical separation thus finds a better explication, which allows for a better understanding of how the position of value-based reasons pushes towards a reconsideration regarding the exhaustibility of rationality, and the reasons against which it is held accountable, that subjective theories based on desires and subjective interests thought they could provide. The point we want to make, accompanied by the help of Parfit, is to show that without a world composed of desirable objects endowed with intrinsic value, the subject would hardly find himself desiring anything. Consequently, desires are nothing more than a response to the objective value of what generates them. This awareness allows us to re-evaluate the situation and realise that, based on the relationship between objects and desires, the latter cannot constitute the fundamental element for the formation of reasons to act. The reasons with respect to which we are required to respond thus find their reason for being on the basis of facts constituting our body of evidence, facts concerning events - objects, states

[48] The key is to change the perspective. According to the latter, it is no longer the desires themselves, being present to the desiring subject, that provide decisive reasons for action, but it is the value-attributing facts with which the desires are constituted that motivate action. It is not the mere presence of desires that produces the necessary reasons for carrying out a course of events, but it is the desirability of what produces the desires that does so.

of affairs, situations - that as such have an intrinsic value, thus generating that motivational element that leads to the formation of desires and the directionality of the rational subject's action towards the identified end.

The point of the argument is that the "desire-based theories cannot...recognize intrinsic object-given reasons" (Egonsson 2018, p. 23). And if this is the case, these theories cannot provide an exhaustive explanation and justification of rationality. On the other hand, we highlighted how "our practical reasons are all object-given and value based" (Parfit 2013, p. 66). An acknowledgement that not only succeeds in accounting for the evidence of the external world and its intrinsic value, but also does not exclude the importance of desires as an element co-implicated and conjoined with the awareness of the objective values of reality. A value-based theory thus seems to be the best option in order to better understand the structure of practical rationality, its relationship with the ends to be achieved, the means to be pursued to achieve them, and the value elements that construct the decisive reasons and motivate the entire process.

So let us try to establish the point. The fact is, of course, that our desires can constitute reasons; desiring to go to the seaside gives me a reason to go there: the fact that I desire it, and that by indulging my desire I will probably experience pleasure. But even if this were the case, possessing such a desire, which thus grounds a desire-based reason, tells us nothing more than the fact that the desire we have is currently present and that it drives the sum total of reasons to be considered in order to make a particular decision. A reason based on desire is not ipso-facto a decisive reason. If the overwhelming desire to go to the beach to relax does not constitute a decisive reason, the game changes. Let us consider the fact that in my body of evidence there are a whole series of facts related to the current situation in which I find myself, among which will surely be the fact that I am tired and stressed, and this gives rise to the desire to take a day off. This desire constitutes a valid reason to go to the beach, however I have to finish an

important job that I have absolutely no desire to complete. Nevertheless, the consequences of not finishing the work I think are certainly more important than relaxing during a day at the beach, so my decisive reason is to give up my desire and continue with my work. Furthermore, there are so many things that we desire, but which do not really constitute a decisive reason. The desire to discover what is after death does not ipso-facto constitute a decisive reason to kill myself; the desire to eat authentic okonomiyaki does not ipso-facto constitute a reason to buy a plane ticket and fly to the Kansai region if I cannot afford it. Desires are often transitory and sometimes capricious. The perspective that sees reasons as based on the intrinsic value of a fact is more effective in describing how we respond to a normative element that motivates us. Also, because this perspective succeeds very well in taking into account how desires can also contain a value element that can motivate an action. Finally, a further factor weighing against desire-based theories on the scale is the fact that the purely desire-related perspective fails to account correctly for the important instrumental chain identified within practical rationality between means and ends. Indeed, wanting B implies desiring B, but if to the end of B we ought to A, this does not necessarily mean that there is also a desire for A. Sometimes the means necessary to achieve a desire are unpleasant and involve great sacrifice.

We were therefore able to draw a conclusion. To the prospect of a practical rationality based solely on reasons determined by our present desires or our self-interest, we have replaced a more correct objective approach which, without eliminating the desirable component, has determined the intrinsic value of the objects with which subjects interact as a fundamental basis for the constitution of reason-facts. We have said, however, that rationality is identified with the correctly responding to reasons, and so, although we have shed some light on the nature and source of those reasons, it remains for us to illuminate how this responding is determined. How, then, does responding to reasons come about?

How do we say 'yes' to the values that motivate us to act? The answer is not long in coming, and it is always Parfit who helps us:

> *While reasons are given by facts, what we can rationally want or do depends on our beliefs...Our desires and acts causally depend on our beliefs when we have these desires, and act in these ways, because we have these beliefs...In most cases, when some desire depends on some belief, this relation is not merely causal*. (parfit 2013, pp. 111-112)

Our belief does not only cause our desire, but also justifies it. Let us elaborate on what Parfit is trying to suggest to us. Parfit seems to replace reasons with beliefs as far as the source of rationality is concerned. But in reality the issue is different. Following and maintaining what has been said about rationality as correctly responding to reasons, let us not fall into temptation and revolutionise what has been said so far by ending up reconsidering rationality in terms of correctly responding to beliefs. But beliefs actually turn out to be that element of assent we were looking for in completing the image of rationality as centred on correctly responding to reasons. Thus, the bearing part is the one that refers to the causal relationship between desires, actions and beliefs. Beliefs justify our pursuit of an action or desire. In the face of a body of evidence, which constitutes a reason on the basis of the objective value of an event, it is a belief that will then sanction the necessary assent in order to initiate the entire decision-making process. We must believe, that the reason for which we are moved to action is indeed a decisive reason and we must believe that it is based on a value that we recognise. If this were not the case, if we lacked this belief, we would find ourselves as if petrified, unable to decide. Since, "when we have no beliefs about the relevant, reason-giving facts, there may be nothing that we ought rationally to do" (Parfit 2013, p. 113). What Parfit does is to provide a fundamental

awareness of the missing piece in order to complete the mosaic of practical rationality that we are attempting to lay. However, it is necessary to clarify in what terms these fundamental beliefs are outlined. For it is these that allow us to close the practical process of rationality by assenting to those decided reasons to which we are obliged to respond — if we really want to conclude something. And when speaking of beliefs, it is impossible not to return in thought to what has been said about theoretical rationality.

Here the opportunity arises again to push towards a global conception of rationality that involves its nuances, both practical and theoretical. In fact, the beliefs we cling to regarding the possibility of acting can often be defined as true beliefs, and thus the product of a theoretical deliberative act regarding the truth of the belief itself. It would therefore be natural to conclude that in order to be so, that is, to motivate us to act in the practical sphere, the aforementioned belief must necessarily be true and thus necessarily pass scrutiny by theoretical rationality. This is an easy temptation, but it comes across as merely sufficient, not necessary. For it is the belief itself that is necessary, not its absolute truth. For, always following Parfit, in order to act practically — thus independently of a truth content — it is sufficient that the belief can be true. But what does it mean for a belief simply to be possibly true? The significance lies in the fact that, in the absence of information, or due to the inability of the subject, the only thing necessary for assent with respect to reasons is that a belief is formed. A belief that can hypothetically prove to be true and whose status is strong enough to justify action. Apparent beliefs are thus defined, whose truth if confirmed, on the basis in this case of a theoretical process on the part of rationality, would then turn out to be real. The gap between the practical and the theoretical is played out here. The practical part is not interested in real truth, since an appearance that can possibly prove to be real is sufficient for action. And that is why our theoretical side is necessary. Two halves that work together but push towards different ends.

To conclude, we can finally answer the question: is our rationality a desire-based rationality? The answer to which is definitely no, if we understand desires as a totalising and exhaustive element of a practical conception of rationality. Despite this, we have understood how desires are not to be completely eliminated from the framework of inferential and causal relations inherent within the entire practical process of our rationality. A rationality that is delineated as correctly responding to reasons, on the basis of objective values, whose response is confirmed by the belief in the correctness of the process itself, a process, however, that is delineated in a preponderantly instrumental manner. A process permeated by a continuous causal connection on the basis of input-output relations, between means and ends. An instrumentality that seems at the end of what has been said to be able to be used to summarise the very functioning of the entire practical process that we have attempted to clarify. An instrumentality that seems, once again, to constitute the emblem of the need to find an exhaustibility of rationality within a single scheme and concept. A question that arises spontaneously at this point, and that will find a plausible answer later on, turns out to be: is it really so?

4.4.John Broome

We concluded the previous section with a question that left us hanging, poised on the threshold of an instrumentality that seems to almost totally envelop rationality. A question whose importance needs to be substantiated, a question that finds further legitimacy through the analysis of the work of an author who has been mentioned several times in the course of the journey so far, an author who constitutes the pivot of many of the declinations, positive and negative, of

the contemporary interpretation of rationality. This author is John Broome. Broom was previously used as a point of reference with regard to a normativity that proved to be ineffective in its attempt to rest on structural requirements of rationality. The use of Broome was therefore negative, it served us to corroborate a position, such as the one provided by Kiesewetter that could solve the problems regarding an excessively procedural conception of rationality in favour of a correct answer to reasons that, together with the perspective of a value-based theory such as the one described by Parfit, manages to connect a substantial part with a procedural one in order to better render an image of rationality that can solve the same problems from which we started. However, Broome, aware of the limitations of his position, and through sharp comparisons with many of the authors mentioned, such as Kiesewetter in primis, Kolodny, Bratman and others, has attempted in his own way to remedy the criticism levelled at him, while remaining within the original perspective he structured. Our task, therefore, now becomes one of restoring the solutions Broome offers, arguing why despite the attempt even these prove to be inadequate, and the result to which this positive revision has led Broome.

The problem regarding normativity and in particular the perspective of the requirements formulated by Broome in order to demonstrate and justify the normative character of rationality emerged at the level of the scope that the requirements delimited through their formulation on the basis of ought propositions. As pointed out by Kiesewetter and Kolodny, a narrow-scope view[49] leads to serious consequences. In particular, it leads us to unduly legitimise the ability to detach reasons on the basis of the antecedent attitude state provided by the requirement, a problem that has been identified as precisely 'detachment'. This detachment, because of its consequences, has allowed us to explore the weaknesses of this narrow approach, through the analysis of what has been

[49] Let us summarise the definition of Narrow-Scope View: "If you believe you ought to do something, you ought to do it" (Broome 2013, p. 32).

called, in the debate, the 'bootstrapping problem'[50]. In short, Broome himself is forced to acknowledge the limitations and difficulties that an overly rigid perspective such as that based on a narrow-scope view of requirements raises. And it is precisely this awareness and intellectual honesty that led Broome to produce a revision of the scope of requirements in order to maintain the argumentative structure in favour of their normativity while managing to overcome the problem of detachment and bootstrapping. What then is the strategy adopted by Broome? The key to resolving the issue lies in being able to widen the scope. Broome replaces the narrow-scope with a wide-scope, i.e. a scope that "governs the conditional proposition that, if you believe you ought to do something, you do it" (Broome 2013, p. 32). The wide-scope view thus takes on a precise definition: "*You ought that, if you believe you ought to do something, you do it*" (Broome 2013, p. 32). The substantial difference with its sister consists in the different construction of the antecedent 'ought' which is connected to the rest of the proposition by a conditional element. It is the different expression and use of the conditional element that allows us to dissolve the strict rigidity that was present in the narrow-scope view. The wide-scope, unlike the narrow-scope, does not simply determine the requirement such that if we choose to adopt the antecedent attitude then we must, necessarily, adopt the consequent attitude. What the wide-scope offers, is a choice. In fact, thanks to the conditionality of the wide-scope "you can just as well satisfy the requirement by dropping the antecedent attitude" (Kiesewetter 2017, p. 88). And it is precisely the possibility of dropping the antecedent and completely reviewing the course of events that constitutes the substantial and structural difference with the narrow-scope. A fundamental difference, since it is thanks to this particular formulation of the wide-scope that we are able to obviate the detachment problem. Since the stringent connection between the antecedent attitude and consequent attitude is

[50] See, p. 33 of this thesis.

dissolved through the ever-present possibility of revising the attitude itself with the consequent suspension of the antecedent.

On the basis of what has been said above, it is possible to return a transposition, in terms of wide-scope, of the requirements that were previously set out on page (32) of this thesis:

> *(ER) Normative enkratic requirement, wide-scope: A ought to [not believe that she ought to ϕ or intend to ϕ].*
>
> *(IR) Normative instrumental requirement, wide-scope: A ought to [not intend to ϕ or not believe that ψ-ing is a necessary means for ϕ-ing or intend to ψ].*
>
> *(DR) Normative doxastic enkratic requirement, wide-scope: A ought to [not believe that A has sufficient evidence that p or believe that p].*
>
> *(MR) Normative modus ponens requirement, wide-scope: A ought to [not believe that p or not believe that p → q or believe that q].*
>
> (Kiesewetter 2017, p. 88)

Comparing this formulation with the previous one, the substantial difference between the two approaches can be understood by focusing on the use of parentheses for wide-scope requirements and the 'then' conjunction for narrow-scope requirements. Recalling what was said earlier, the 'then' used for narrow-scope requirements implies a strong structural and logical connection between antecedent and consequent that does not allow any form of modification as to what we are required to do once the antecedent attitude has been assumed. While the flexibility of the wide-scope is evident from the schematic setting of

the requirement, which takes the form of an expression where the fundamental antecedent, the ought-to, is placed outside the parenthesis.

Broome would seem to have succeeded in maintaining a definition of rationality in terms of normative requirements [51] while avoiding the risk of detachment of reasons and attitudes, adopting a wide-scope that allows the fundamental requirements to be fulfilled without implying a necessary causal connection between antecedent and consequent, thanks to the possibility of dropping the former. However, this is not always the case, in fact "it has been argued...that the wide-scope account has unacceptable normative implications as well. While wide-scope requirements do not generally allow for factual detachment, they do allow for detachment in particular cases, via certain bridge principles" (Kiesewetter 2017, p. 92).

A striking example of this problem is the 'Liberal Transmission Problem'. This issue suggests that our instrumental reasons can liberally give rise to a chain of derived reasons that are transmitted in order to achieve a predetermined goal, yet generate logical-attitudinal discrepancies. Following an example given by Kiesewetter[52], this process can generate conflicting reasons as to how to achieve the aforementioned end. If we want to go to the cinema with our father but only have one ticket available, we have to figure out how to get a second one. This gives us a valid reason to look for a necessary means in order to buy a second ticket, but not having enough money at our disposal, the liberal chain might lead us to consider selling the only ticket we have as a necessary means in order to earn enough to be able to afford to buy the second one. And this, of course, raises

[51]Looking back at the formulations of the wide-scope requirements given on page 89, it is possible to take clearer note of the solution adopted by Broome. The use of square brackets separates the antecedent of the requirement from the consequent. The two sections of the formulation thus work both together and independently. This expedient makes it possible to bypass the strictly causal structure that had led narrow-scope requirements to the detachment problem. The mechanism works as follows: The requirement informs us that we ought to comply with a certain condition — and thus the strongly normative structure desired by Broome for his requirements is maintained — but what we are required to comply with can always be passable for revision and thus abandoned, thereby avoiding breaking the normativity inherent in the antecedent.

[52] See example at (Kiesewetter 2017, p. 95)

quite a few problems with respect to the goal we had set ourselves. This example should be able to provide a plausible scenario in which even a wide perspective would entail problems with regard to the use of the requirements outlined by Broome. This is because the possibility of respecting the connection between antecedent and consequent or of dropping the antecedent, expressed by the wide-scope, implies a disjunctive perspective, which "according to liberal transmission...entails reasons to give each of the responses that are part of the disjunction" (Kiesewetter 2017, p. 94). In short, "the problem for the wide-scope account is that it is difficult to see how any intrinsic reason could give rise to an instrumental reason for a disjunctive response, while at the same time responding in one of the two ways that would constitute such a response failed to be a means to satisfying that intrinsic reason" (Kiesewetter 2017, p. 95). However, if this were the only problem, Broome might say that the example used is paradoxical. Because although there is the possibility for a disjunctive response, no one in a similar situation as with the ticket, or in a scenario with the same parameters, would follow the instrumental chain to the point of selling the only one we have in order to buy a second, thus ending up back at square one. But Broome's counter-response is not enough to shield him from the criticism brought against him. In fact, we still have something to say about the wide-scope and the problems that even this Broome-adjusted view implies.

We have seen how the fulfilment of requirements through a wide-scope leads to the disjunctive perspective of a duplicity. The constituent parts of this duplicity are shown to be equally valid, which is why one can speak of a symmetry present between the different options in order to fulfil a requirement. However, it is precisely this symmetry that constitutes a further issue. Since, "it seems that there is an asymmetry between different ways of satisfying structural requirements of rationality that wide-scope requirements cannot capture" (Kiesewetter 2017, pp. 138-39).

Let us see how. Let us consider the example given by Kiesewetter regarding the inherent asymmetry in the disjunctivism of requirements, and in particular the instrumental one:

> *Suppose that you intend to take the bus in five minutes, you believe that in order to do so, you have to leave now, but you do not intend to leave now. You are irrational. According to the wide-scope account, you can satisfy the instrumental requirement by ceasing to believe that in order to catch the bus in five minutes, you have to leave now. Intuitively, however, this is not a rational reaction to your situation. There seems to be a relevant asymmetry concerning the satisfiability of the instrumental requirement: you can become instrumentally rational by intending the means, and perhaps by abandoning your end, but not by simply dropping your means/end-belief*. (Kiesewetter 2017, p. 139)

This asymmetry emerges through internal forms of contrast within the very constitution of the requirements. An asymmetry that is defined by Kiesewetter precisely for this reason: *basing asymmetry*. Which finds its justification on the basis of the fact that, in view of the instrumental requirement, "it does not seem plausible that you can rationally drop your belief that ψ-ing is a necessary means to ϕ-ing on the basis of your intention to ϕ and your lack of intention to ψ. Quite the contrary, if you drop your belief in a means/end relation on the basis of your intentions, what has happened was most certainly an irrational process of wishful thinking" (Kiesewetter 2017, p. 141).

These complications lead directly to another consequential concern. Given the controversial nature of the symmetrical asymmetry of the wide-scope, it is natural to ask how this, applied to the requirements, can be effective in practically guiding us towards a choice. Indeed, “if all rational requirements are structural and disjunctive, agents will always be confronted with at least two equally

rational options" (Kiesewetter 2017, p. 149). The dynamics underlying the disjunctivism present within the wide-scope requirements "entails that rationality can never determine a particular option as required, that there are always two ways of avoiding incoherence, and that these two ways are rationally on a par" (Kiesewetter 2017, p. 149). This conclusion, however, would also be problematic for Broome himself, having described his reasons as pro-tanto, and basing them on a metaphor centred on the ability to weigh them in order to determine the decisive one in terms of ought propositions. Essentially, the possibility offered by the wide scope would make it difficult to definitively determine what to do to the exclusion of all other options, and this is because an equally valid alternative is always offered in every situation.

The problem of asymmetry may not be as strong as bootstrapping, but at the same time it represents an element of friction in what for Broome should be a solid, strong, structural and possibly definitive approach. Broome attempts to put an end to how and why one should doubt the normativity of rationality and the validity of the requirements he has outlined, but although his attempt to widen the scope of the latter helps him to consolidate his position, the whole structure continues to falter. We can agree that the problem of asymmetry perhaps needs to be better developed and argued, but it is nevertheless one of a series of critical elements that continue, despite everything, to emerge. As if this were not enough, Broome himself goes so far as to call himself agnostic with respect to the perspectives on requirements and normativity that he had defended to the hilt, and although he continues to believe in his position, this is a further element to agree with in respect to proceeding beyond such a stringent approach.

Broome, however, still has something to contribute, which will also serve to take us further with our review of rationality and attempt to get closer to the end point of the question as to how best to understand our being rational. The

relevant contribution made by Broome, in addition to having fuelled contemporary debate in many respects, comes with the re-understanding of the concept of reasoning, defined as the fundamental activity capable of providing an account of rationality in dynamic terms, essentially exceeding what has been said about wide and narrow-scope. What Broome provides is a type of reasoning that he redefines as first-order reasoning. Let us therefore try to provide an analysis of this new concept and provide an explanation as to why it is relevant.

The process defined as reasoning by Broome identifies a fundamental logical-structural connection that is decisive for the correct understanding of how the process of reasoning itself moves. The connection is that between the premise-attitudes and the conclusion-attitude that are determined within the decision-making dynamic, at the moment in which a subject intends a new attitude on the basis of a previous attitude. Furthermore, Broome is keen to emphasise that when we make use of the terminology premise or conclusion-attitude, what these terms imply is always the content of the respective attitudes. Reasoning thus takes on a processual form, wherein input and output of contents are part of the process, which, to be such, must always be conscious. Otherwise, it would be impossible for the subject on trial to recognise the content of his or her own attitudes. And Broome argues that, in order to recognise and validate this fundamental premise, we need only verify that it is possible "to express the content to yourself using a sentence" (Broome 2013, p. 222). Thus, the ability to be able to verbalise the process, through a discourse that can be both internal and external, allows us to verify and validate its conscious status. Language thus allows us to make the active process of reasoning “explicit” (Broome 2013, p. 224). The reasoning, then, as Broome conceives it is "a [coscient] process through which some attitudes you initially have cause you to acquire a new attitude" (Broome 2013, p. 224). This process, however, must fulfil certain necessary conditions in order to be such. As we have seen, one of these is that "the attitudes are conscious" (Broome 2013, p.

225). But equally important is the necessary presence of what Broome calls a linking belief, i.e. "a belief that links the premises and conclusion" (Broome 2013, p. 229). Consequently, what this linking belief emphasises is that, given certain premises and their necessary logical conclusion, the subject must necessarily believe that if the premises occur then the conclusion they imply will occur. A kind of, we might call it, back-up belief. On the basis of what has been said so far, therefore, we can state that the correct operation of the reasoning process is determined on the basis of the correct derivation of the conclusion-attitudes "by operating on the premises" (Broome 2013, p. 231). A derivation that, as Broome argues, given the linguistic nature of the process implies both a causal connection between the premise-attitudes and the conclusion-attitude, and "a semantic connection between the attitudes 'contents" (Broome 2013, p. 231).

The entire process structure described by Broome appears to be intuitively effective, yet something seems to be missing. That is, a fundamentally important clarification: as with all processes, the process of reasoning also functions on the basis of rules. Rules that determine whether the process itself is functioning correctly and whether the subject is performing it effectively. It is precisely the element of regulation that allows Broome to elaborate a reconsideration of rationality in terms of a process without denying the fundamental importance of requirements for his system. Reasoning is thus expressed in terms of a "rule-governed operation on the contents of your conscious attitudes" (Broome 2013, p. 235). And like all operations, as such, “"It is not merely a causal process that takes place in your mind [but] something you [actively] do" (Broome 2013, p. 235).

Let us now take a step further. Reasoning is a rule-governed actively mental process. And as such it concerns the content of our attitudes. Now, as with the distinction regarding rationality, reasoning, as Broome described it, in order to determine our own being rational is divided into theoretical and practical. We therefore also have for reasoning a distinction between practical and theoretical.

Where theoretical refers to reasoning that leads to a true belief "about what you ought to do or what you have a reason to do" (Broome 2013, p. 250) and practical to the formulation of an intention capable of causing a physical action. Following Broome, then, we can redefine practical reasoning in terms of intentional reasoning. And for Broome, the fundamental type of intentional, and therefore also practical reasoning, is that "reasoning that brings you to an end that you intend" (Broome 2013, p. 251). That is, what Broome calls *instrumental reasoning*.

We have therefore reached the turning point. Following Broome's logical approach on how to understand our reasoning and therefore rational activity, we have come to define an instrumental process as the core of our practicality. The time has therefore come to delve into this instrumentality and understand why it is decisive for Broome and more generally for the debate on rationality.

Let us briefly restate at a schematic level the instrumental requirement formulated by Broome and its explicitness at the procedural level:

> *Rationality requires of N that, if*
> *(1) N intends at t that e, and if*
> *(2) N believes at t that m is a means implied by e, and if*
> *(3) N believes at t that m is up to her herself then, then*
> *(4) N intends at t that m*[53].
> (Broome 2013, p. 256)

At this point, following the logical thread offered by Broome, we can agree that our instrumental reasoning constitutes "a way of bringing yourself to satisfy this requirement" (Broome 2013, p. 256). But as clearly highlighted above, in order to do so, our reasoning must follow a rule. And this rule takes the form of what

[53] For a correct interpretation: "'e' and ' m' are propositional letters; they stand for 'end' and 'means' respectively. The propositions e and m must not be the same" (Broome 2013, p. 159) — This is because the risk would be to fall into a tautology.

Broome calls instrumental permission. That is, a type of permission that establishes how rationality permits N that:

> *N intends at some time that e, and*
> *N believes at some time that m is a means implied by e, and*
> *N believes at some time that m is up to her herself, and*
> *N intends at some time that m, and*
> *N' s intention that m is based on N' s intention that e, and belief that m is a means implied by e, and belief that m is up to her herself.*
> (Broome 2013, p. 257)

And it is this permission[54], thus formulated, that guarantees the correctness of our instrumental reasoning, enabling us to fulfil the fundamental requirement for our practical action. And the reasoning thus identified, through the connection between requirement and permission, is thus defined by Broome as "paradigmatic instrumental reasoning" (Broome 2013, p. 261) — i.e. the fundamental reasoning that "takes you from intending an end to intending a means that you believe is implied by the end" (Broome 2013, p. 261).

This lengthy process allows us to identify an effective way of describing the fundamental operativity of the rational activity of a subject free to intend a practical course of events, — an operativity that is identified in paradigmatic instrumental reasoning — and that leads Broome to make the definitive judgement as to how rationality is to be understood, i.e. as what "requires you to

[54] Broome introduces the term 'permission' to create a second structural level with respect to the instrumental requirement of rationality. The need for this 'permission,' which is delineated as a conditional disposition of the subject in order to predispose himself in the suitable manner to the fulfillment of the corresponding instrumental requirement, emerges because of the impossibility of solely using the requirement as the foundational element for the entire instrumental process of rationality. For if this were the case, one would return to a narrow dimension of the requirement itself that would again lead to forms of detachment. Permission therefore constitutes a dispositional regulatory scheme that the rational agent must follow in order to conduct reasoning capable of being able to enact the instrumental requirement in order to achieve practical action.

intend what you believe is the best means to an end you intend" (Broome 2013, p. 262).

The permissive element introduced by Broome opens up a margin of possibility for understanding that there must be something else besides the dictatorship of the rigid requirements of rationality, but at the same time Broome fails to go beyond his strictly formal formulation of how to identify an instrumental reasoning process consistent with his normative structure of rationality on the basis of the requirements that the latter underlies. For Broome, there must be an inherent conditional element within the process he describes, but he remains convinced that there is always a 'better means' regardless of that conditional element, despite the fact that he himself claims not to be able to specify the notion of a 'better means'. So he too remains trapped in this gilded cage that is instrumentality. A cage that protects us perfectly, that works perfectly, but that does not restore the social and personal individuality of values that characterises the agent subject.

4.5.A Rallying Point

However, despite his perspective 'against' rationality understood as correctly responding to reasons, in favour of a normative conception of rationality on the basis of explicit requirements, and justified through the process of reasoning, Broome adds an important piece to broaden and better understand the original view provided by Kiesewetter. Broome, in fact, although he continues to uphold his position in terms of an exhaustible rationality through his wide-scope normative requirements, provided a timely description of the reasoning process. A process that is identified as an activity, subtended yes by

guiding rules, but which tightens its central knot through an inferential connection (input-output) between the contents of several attitudes. A premise, towards a conclusion. This description allows us to use the basic structure of how our reasoning works to identify the process that guides us, on the basis of our body of evidence to correctly respond to reason. Where the link belief is the belief about the reason that connects our premise (the body of evidence) to the conclusion (the action we are intent on carrying out). This leads Broome, in his desire to be consistent with his own system to identify in the practical sphere the instrumental means-end connection as the fundamental one. It also allows us to show how the same structure is also framed from the perspective of rationality as correctly responding to reasons. In short, both Parfit, Broome and Kiesewetter willingly or unwillingly, consciously or unconsciously, end up falling back on an approach to practical rationality that, although described and justified differently, ends up being inexorably instrumental.

It therefore seems possible, drawing conclusions from the different interpretative perspectives on rationality provided so far, to answer the question that had left us hanging at the end of the section on Parfit. Is our practical rationality, then, inexorably instrumental? It seems that everything said so far leads us to answer: yes. Whether we want to set our rational being on correctly responding to reasons, or on correctly reasoning, based on the content of intentions, resting on the foundations of solid normative requirements, or finally on believing the objective value of what motivates us to act, in the end we will always end up with a fundamental relationship between our premises and conclusions. A causal relationship that gives strength to our approach on the obvious link between the correctness and effectiveness of an input on the basis of its necessary output. A fundamental connection between means and end that permeates rationality and constitutes the emblem of our practical instrumentality. The next chapter, however, will address this response, laying the groundwork for

a challenge to instrumentality in an attempt to concretely question its seeming inevitability.

5.Inexorably Instrumental

5.1.From Practical to Instrumental

At the end of the previous chapter we concluded by highlighting how a necessary practical instrumentality constitutes the inexorable common bass that determines the rhythm of our rationality. A profound melody resonates within what is the fundamental dynamic that leads us to the achievement of the ends we set ourselves through the choice of the best means. Means that are determined on the basis of sound and decisive reasons, which are based on the objective value of what constitutes our body of evidence. Put in these terms, rationality, and especially its instrumental part which would replace the whole of our practicality, turns out to be the inexorably present structure — regardless of all the assumptions and comparisons that can be matured regarding the concept of rationality itself. A rationality that has been thought of as intrinsically normative, a rationality considered and argued as responding correctly to reasons, a rationality that considers our desires but clings to the real value of facts, a rationality that could be all these things, but turns out to be definitely instrumental. Well, we must now question whether this inexorability, whether this certainty, really turns out to be so. And to do so we must first provide a better understanding of what is meant, in a strong sense, by instrumental rationality.

We can say that the element of synthesis capable of making us understand what is meant by instrumental rationality has already somehow emerged. And it is precisely the relationship between means and ends that represents this synthesis. Following Jonathan Way, it turns out to be possible to state with a fair degree of confidence that "we are instrumentally rational when we take necessary and effective means to our ends, and instrumentally irrational when we fail to do so" (Way 2010, p. 1). But on the basis of what do we determine the ends that are useful to our possibility of being able to define ourselves as completely and instrumentally rational in the attempt to pursue them? If it is not solely desires, as we have seen, it will be the values intrinsic to the objects on the basis of which the factuality of our reasons is constituted that will suggest an answer. And these values conceal an additional concept, which, as we shall see, will prove to be of utmost importance for a proper understanding of instrumental rationality. Namely, the concept of expected utility.

Every end, and the values the latter calls forth, conceals a utility. The subject uses the expectation of this utility as the needle of a fundamental compass for proper navigation toward the end itself. Or toward a different end on the basis of a hypothetical expected greater utility. Simplifying, the subject creates for himself an expectation of the gain that an end to be achieved encompasses and based on the outcome obtainable by following certain means attempts to maximize that same utility of which he has become aware.

Before going any further, we can put a point to the question regarding instrumental rationality. The latter is defined as the ability to determine, understand, choose, and follow the best means in view of a set end, through the analysis of the expected utility contained in the relationship between the two. We can take this definition as established, and regardless of what shade of rationality one wishes to defend or justify, it constitutes the fundamental explication of how our practicality works.

However, we have also mentioned utility and used it to clarify the formulation of instrumental rationality. This extra clarifying element allows us to go beyond the assumption of the definition of this inexorable rationality and explore its facets. Where there is utility in fact, there is preference. The latter, with respect to a pair A - B, representing two hypothetical choices, is identified as "a disposition to choose A over B in choice contexts in which both A and B are options" (Tenenbaum 2020, p. 28). In addition, "these choice dispositions are picked out in a way that is compatible with the resulting preferences being the basic attitudes for a theory of instrumental rationality" (Tenenbaum 2020, p. 28). We can understand these basic attitudes as the dispositional and intentional set that comes to be constructed on the basis of the need to respond correctly to reasons, which come to be established on the basis of the body of evidence comprising the relationship between means and ends implying an inherent utility in the choice of the agent subject.

In respecting this intimate nature inherent in our instrumentality, on the basis of our preferences implied by the utility we expect to achieve through the interplay between means and ends, it becomes possible to emphasize what we can define as the basic principles of instrumental rationality. These principles prove to be functional in order to be able to delineate and understand our rationality as strictly instrumental. Thus, the latter can be expressed by starting from the structure set forth by Tenenbaum[55], which is here reworked and expanded so as to exceed the limits within which Tenenbaum circumscribed them:

Coherence: "When an instrumentally rational agent realizes that her ends are incompatible (cannot be jointly realized), she abandons at least one of the

[55] Tenenbaum succeeds in highlighting fundamental principles capable of delineating instrumental rationality. The author does so driven by the need to demonstrate and justify an 'extended' approach to instrumental rationality referring primarily to the concept of intentionality, which should constitute the fundamental element capable of describing our instrumental dynamic within the practical-rational process.

ends from the smallest subset of her ends that cannot be jointly realized" (Tenenbaum 2020, p. 45). The means and ends of the rational agent must be consistent with its mental states and maintain that consistency through the entire process except for a change of end, mental state, or acknowledgement of a better means. In such a case a new chain is reopened, at the basis of which must reside again a renewed structural coherence on the basis of the changes that have taken place.

Exercis(-ability): "The exercise of instrumentally rational agency is an intentional action" (Tenenbaum 2020, p. 45). A directionality that describes the agent's movement within the practical dynamic of achieving the intended end on the basis of the available means. This directionality is structured by the technical theoretical set consisting of the reasons-facts and values embedded within the decision-making process itself. Moreover, the directionality in question moves in the same direction as the subject's own mental states.

Complete(-ness): "No other basic principles govern the exercise of our instrumentally rational powers" (Tenenbaum 2020, p. 45). This principle stipulates structural closure on the basis of the first two principles, however, letting it be understood that if further possible principles were present, these principles, while valid, would not be constituted as basic, but founded on the basis of the first two previously established.

The reference to exercise in the second principle is crucial, as it reiterates the basic practicality underlying the instrumental dimension of rationality. The first two principles trace and reinforce this dimension. It must be possible for the rational agent to exercise his faculty and to be consistent in doing so. These are the pivotal points through which to draw the outline of our instrumental ration-

ality. At this point it seems that a bit of everything we have discussed and highlighted in this thesis tends to find its natural outlet in a dimension that can perfectly describe and exhaust our practicality. But let us take it a step further.

Instrumental rationality, through the principles that outline its structure and expected utility, allows us to highlight a further connection within the rational process itself. Namely, the connection between rationality and decision theory. The latter becomes evident precisely because of the necessity of an individual's exercise of the rational faculty and the intimate utility inherent in this exercise itself. If we identify means, on the basis of an end, considering the utility derived from it, and rely on the underlying preference, we are, by necessity, delineating what the limits within which the decision takes shape are. This perspective has been put on display extensively by those who, over the years, have been involved in formulating, deepening and innovating the theoretical conceptual scaffolding of decision theory. That is, the conceptual theoretical framework on the basis of which to understand how, why and in what way subjects — and in this case it seems appropriate to add the adjective rational to them — produce and carry out their practical decisions. What we have highlighted as expected utility, and the theory behind it, is in fact described by James M. Joyce as the: "most widely defended version of normative decision theory" (Joyce 1999, p. 9).

It is at this point that a link, a critical one, emerges between what we have said so far about rationality and the just-mentioned decision theory. Indeed, the latter, especially at the level of instrumental rationality, is found to be closely entangled with the possibility of defining and describing rationality itself. Consequently, it also represents an element that broadens the possibility of discussing, and challenging, the practical totality of instrumental rationality itself. But how? The decision is located within the rational process, and therefore, by highlighting certain gaps within it we may come to transitively highlight gaps within the supposed exhaustibility of rationality by its instrumentality.

5.2.From Rationality to Decision and Vice Versa

What is meant, more precisely, by decision theory? We can try to give an answer by indicating what the fundamental goal of this theory is, so that we can grasp its dynamics. The goal of decision theory is to "establish a general standard of rationality for the sort of instrumental (or 'practical') reasoning that people employ when trying to choose means appropriate for achieving ends they desire. [Furthermore] expected utility theory champions subjective expected utility maximization as the hallmark of rationality in this means-ends sense" (Joyce 1999, p. 9). And it is with this description that we can remark on what was said at the conclusion of the previous paragraph. It remains, however, still somewhat fuzzy about the expected utility that we previously placed alongside the concept of preference within the choice of means and ends. Where does this expected utility, which now returns stronger than before to its very important position within decision theory, come from?

To give an answer we need to go back to the seventeenth century and, more specifically analyze what thanks to Pascal we can now call *The Fundamental Law of Probability*[56]. The question raised by Pascal emerges from the need to determine how two gamblers might be able to find a fair way to share the prize of a bet in an uncertain situation in which one player has an advantage but neither is certain to win[57]. Pascal, driven by the need to solve this problem, and aided by

[56] If {E1, E2, . . . , En} is any set of jointly exhaustive, mutually exclusive events, each of which has a definite probability, then the sum of all these probabilities is 1, that is, $\Sigma j\ \rho(Ej) = \rho(E1) + \rho(E2) + \ldots + \rho(En) = 1$. (Joyce 1999, p. 11)

[57] See (Joyce 1999, p. 10) for the precise description of the situation mentioned here.

his intuition and mathematical genius, succeeded in determining what will continue as the modern theory of probability, and which, in the case of the two gamblers proposes that "a player's fair share of the pot in a truncated game of points should always be her expected payoff, the quantity obtained by combining her winnings under all endgames 'geometrically' (i.e., multiplicatively) with their probabilities" (Joyce 1999, p. 12). What catches our attention with regard to the gambler's problem is the proposition 'expected payoff,' which, as can be guessed at this point, resonates with the same tone as that expected utility mentioned many times and now under genealogical examination. In short, "the real substance of Pascal's proposal, then, is that wagers[58] should be valued according to their expected payoffs" (Joyce 1999, p. 14).

We thus manage to identify the clue as to how the trend that will lead us to a better understanding of the role and nature of expected utility was generated, but more importantly, we manage to understand its relevance to decision theory. We also understand how mathematics and probability, elements that we had also identified in discussing bounded rationality, were grafted from early on within an understanding of the behavior and choices of a hypothetical rational agent. And this tendency determines from its origins an overwriting of the understanding of the subject in the terms of a precise performative calculability on the basis of probabilities and outcomes that define the edges of the rationality of action on the practical basis. But let us proceed further.

The gambler represents any hypothetical acting and thinking individual who, in an attempt to pursue his or her own interest, is faced with a choice. How much to bet? How much could I win? Can I win? Or even better: How likely am I to come out a winner? Here, through simple identification with the player we can easily understand that, the utility we expect is none other than our utility, our interest, our purpose. That expected payoff that we can safely interchange with

[58] See (Joyce 1999, p. 15): "A wager, for current purposes, is simply a proposition that describes a way in which a bettor's total fortune depends on the state of the world".

our inherent expected utility in decision-making on the basis of the rational-instrumental framework outlined so far is now delineated, more clearly, as a 'subjective expected utility'. This subjective expected utility (SEU) is such because it belongs to the subject's value paradigm, but despite this we must not forget how the values the subject experiences belong first and foremost to an objective world. No wonder then that, considering only the personal side, the subjective expected utility hypothesis finds its first formulation in a strong sense, perhaps too strong[59]. Applied to our gambler this SEU finds the following formulation:

> *In order for a "professional" gambler to be rational in the instrumental sense there must be at least one utility function for money, u, whose associated expectation operator, U, strongly ordinally represents the gambler's preference ranking in the sense that both*
>
> $G > G^*$ *if and only if* $U(G) > U(G^*)$ *and*
>
> $G \geq G^*$ *if and only if* $U(G) \geq U(G^*)$
>
> *hold for any* $G, G^* \epsilon G$

Furthermore, following the formulation of this subjective hypothesis of expected utility, we can say that the gambler in his being instrumentally rational through his betting in view of the maximum possible gain, "will always perform her most preferred option [and] will invariably seek to obtain a wager that maximizes her subjective expected utility" (Joyce 1999, p. 41).

This confidence regarding the type of course of events concerning the hypothetical gambler's behavior based on the formulation of the expected utility hypothesis is not far-fetched. One might indeed wonder whether, simply on the basis of probabilistic calculation, one can delineate the full spectrum of possibilities of a subject's preferences. However, this perspective makes use of a strong

[59] Just as it was the formulation of a rationality on the basis of self interest.

and renowned defense. Two key authors within the debate regarding the concept of utility and economic behavior, Von Neumann and Morgenstern, developed a set of fundamental axioms[60] "on rational preference rankings whose satisfaction was sufficient to ensure that the ranking could be represented by an expected utility function" (Joyce 1999, p. 42). Von Neumann and Morgenstern thus succeed in constructing a very strong logical scaffold on the basis of which to raise the possibility of the exhaustibility of a subject's understanding of behavior from the calculus of utility. And they do so through a theorem capable of showing "how these axioms can be used to construct an expected utility representation for any preference ranking that satisfies them" (Joyce 1999, p. 43). It is precisely the theorem[61] that these two authors develop, therefore, that confirms and generalizes the strong version of the hypothesis regarding subjective expected utility.

Now, it is not possible for us to delve too deeply into the theory related to the established formulation of the validity of this theorem, so we will simply become aware of the coherence and especially concrete functionality that the perspective regarding expected utility outlines in relation to the instrumental setting of rationality. However, not all that glitters is gold.

We have learned to recognize, through the path conducted so far, that positions that are too strong or narrow tend not to work when it comes to rationality, and particularly normativity. We have seen this with Broome and narrow-scope requirements and with the self-interest theory expounded by Parfit. Criticism, then, of this strong expected utility approach is not slow in coming, and it is based on the doubt raised above. Is it really possible to exhaust the understanding of human preferences on the basis of probabilistic utility calculation alone? It is Mark Kaplan, as Joyce points out, who provides us with an answer. The latter highlights that if a subject's preferences and desires were totally exhaustible by a

[60] See, (Von Neumann and Morgenstern 2007).
[61] See (Joyce 1999, p. 43) for summary exposition of theorem 1.3.

mathematical component that can perfectly represent their value, in every context and moment, then there would be no room left "for any kind of vagueness or indeterminacy in the strengths of her desires" (Joyce 1999, p. 43) or preferences. Which would certainly not be a problem, for example, for Von Neumann and Morgenstern, who seek to produce the conditions of possibility for exactly this absence of vagueness. However, the point of the criticism raised here is precisely that "once we give up on finding a one-size-fits-all utility we open up space for the idea that people can differ not only in what they want and how strongly they want it, but in the extent to which these wants are determined" (Joyce 1999, p. 44).

In short, in addition to the small world of the agent subject there is the big world in which the subject finds itself acting. An immense world that is constituted of values, facts and other agent subjects. A world composed of relationships. A social world. And it is precisely the presence of this big world that represents the possibility of the exhaustibility of the subject's preferences on the basis of the impossibility of calculating the random environmental factors that always modify and will modify the subject in unforeseen and unexpected ways. Economic behaviorists can therefore only try to limit these factors as much as possible and produce the most likely predictions possible, but they can never achieve total exhaustibility through probabilistic predictive elements of rational subjects' understanding of preferences and action.

Thus, the need to soften the harshness of the formulation regarding SEU by wording a 'weak version' of it emerges, based on this awareness:

> *In order for a 'professional' gambler to be rational in the instrumental sense there must be at least one utility function for money, u, whose associated expectation operator, U, weakly ordinally represents the gambler's preference ranking in the sense that*

$G > G^*$ *only if* $U(G) > U(G^*)$

$G \geq G^*$ *only if* $U(G) \geq U(G^*)$

hold for any $G, G^* \epsilon G$

(Joyce 1999, p. 45)

By modifying the linguistic expression used in the 'strong' version of the formulation[62], its meaning is changed and it is therefore possible to obtain a definition that will please the defenders of expected utility and will not radically conflict with what has been said about the impossibility of an absence of vagueness in the determination of the rational agent's preferences. This weak version of the SEU, then, comes to express "the basic truth underlying Pascal's insight: It sets up representation of [preferences] by some utility function or other as the basic criterion of instrumental rationality" (Joyce 1999, p. 46).

Thus, that connection between utility and rationality that we were trying to make clear is made manifest, but the story does not end there. In fact, a further connection comes to the fore and one that had already been hinted at, namely that between utility and decision theory. Specifically, causal decision theory. Thus, utility becomes that conceptual element that forms a bridge between instrumentality and decision. And in particular, as we will see shortly, first and foremost a decision structured on the causal dimension that leads it to formation.

What is then meant by causal decision theory, and how does it relate to expected utility? We can summarize causal decision theory by describing it as that theory that "seeks to provide a rigorous formal analysis of the idea that a rational decision maker should evaluate her potential actions solely on the basis of their ability to cause desirable outcomes" (Joyce 1999, p. 161). Moreover, the theory just described can be represented graphically in the terms of a function determining the utility value of an action 'A':

[62] Ie: '*strongly'; 'if and only if'.*

CDT. $U(A) = \sum s\ p(S \setminus A)u(A\&S)$

where the probability function $P(\bullet \setminus A)$ *provides a measure of the agent's estimates of A's "causal tendencies." The quantity* $U(A)$*, hereafter A's efficacy value, gauges the extent to which performing A can be expected to bring about desirable or undesirable outcomes.* (Joyce 1999, p. 161)

Causal decision theory is delineated as the theory of decision making that provides the explanation regarding the fact that the rational agent, in attempting to carry out his or her decisions, must do so by considering the maximization of utility inherent within the decision-making process and evidenced by the function previously set forth. The agent subject is thus defined on the basis of the causal relationship, and in particular that between its means and ends, which identifies the maximum utility obtainable through the decision-making process itself. The subject thus delineates the best performative direction to follow in order to navigate the world.

The point of the matter with regard to the causal perspective consists, therefore, in its practical force, which is determined by the fact that the course of events that is recommended is based on a determined presence of value on the basis of precise calculation and probability. However, the predictor's paradox, the smoker's case or the psychopath's dilemma[63] all highlight how the consequence on the basis of an acknowledgement of outcomes co-implicated in the choice, but not intrinsic to the current state of the choice itself, do not change the factual condition of the objective data present at the time of the choice. To put it more precisely, the conditions determining the probability of the occurrence of a state of affairs at the time of choice is disinterested and unchangeable by the noting of conditions subsequent to the choice. To be, or not to be, in a state of affairs is

[63] See examples mentioned in (Peterson 2009, pp. 187-193)

independent of the choice and its consequences. The probability on the basis of which, through causal theory, we make our choice cannot in any way be modified or conditioned by the choice itself, and it is precisely this that gives confidence and strength to the causal setting.

However, the causal theory does not take into account a piece of information. Information that exceeds the rigid material calculation based on an objective, factual state of affairs. Hindsight information, or hypothetical deliberation on later states of affairs, does not change the factual objective moment by which probability is calculated, but constitutes an obvious piece of knowledge. A system of information that constitutes an important part of our body of evidence and cannot be left alone if the goal turns out to be able to make the best possible decision. What is introduced is a reconsideration of utility on the basis of even the hypothetical, the 'case where', 'if', 'then'. Here, along with the causes, hypotheses are involved with respect to which the causes might incur reconsideration.

Evidence is thus added to causation, and Evidential Decision Theory (EDT) is added to CDT. Which traces the CDT by replacing the causal value with the evidential one founded in the correlation between states of affairs. Awareness of which constitutes a determinant of decision choice "by provisionally modifying our opinions in the way that best reflects our considered judgments about their evidential import" (Joyce 1999, p. 180).

Having reached this point, after all that has been said about CDT and the relevance of considering in turn the evidential aspect that determines a perspective such as that of EDT, it would seem intuitive to provide an equally exhaustive analysis of the latter and to continue further with our argument. This, however, proves difficult, and we are left with no choice but to leave its outlines merely sketched out. This is because although there is no shortage of proponents of an evidential approach to decision theory, they are still in the minority. In a conceptual landscape where the practicality of the causal relationship present in the

means-ends dynamic is all but impossible to dethrone, reflection on the evidential context is eclipsed, thus leading to a difficult availability of material on the subject and ending up leaving only a trace of what might be the debate around the evidentiality of decision theory. However, if there is a lack of tools to develop this approach, which, somewhat by its very nature, gains strength from its self-evidence, it becomes possible by contrast to point out how CDT and the theorists who defend it, prove impassive to the possibility of the non-exhaustibility of rationality and decision-making by their conceptual approach. Therefore, the weakness of EDT, namely its limited structural and conceptual depth, is transformed into strength by the fact that it highlights the implicit willingness to outshine any further conceptual possibilities on the part of CDT, which in addition to being the still-dominant setting, claims to be the only setting.

5.3.Not only Causally and Evidentially Expected Utility

We have, at the end of the previous paragraph, mentioned how the evidential content of reality can constitute, within the decision-making dynamic, a more than relevant factor for the purpose of considering the best means of achieving the desired outcome, and this sometimes exceeding even the causal awareness determined on the basis of the relationship between the means at hand. However, this description turns out to be vague without a clear example that allows us to understand how and why such a thing might happen, especially if at issue is our practical rational efficacy within the decision-making grasp.

It is at this point that a problem, a paradox, which concerns precisely a practical scenario to which everyone might be subjected, comes to the rescue. The

problem in question is Newcomb's problem. A problem first raised by physicist William Newcomb in the 1960s and first discussed by philosopher Robert Nozick. The problem sees the protagonist of the scenario engaged in a choice between two boxes containing a different amount of money. In a box named B1 there is $1,000 and in a second box named B2 there can be either $1M or $0. Making the variable in B2 possible is the hypothetical prediction of a 'predictor' who we know has a 99 percent probability of making a correct prediction. The game is to challenge the predictor and make a choice that involves risk. In fact, before our choice the predictor will place inside B2 an amount of money, i.e. $1M or $0 depending on the choice he assumes we will make. If we, i.e., the protagonist, choose both boxes, (B1, B2) with high probability the predictor, expecting this choice, will have placed inside B2 $0, while, by the same logic, if the protagonist chooses only B2 the predictor will have placed inside it $1M. The game consists in choosing between two options: B1 + B2 or solely B2, where the value of B1 = $1,000, while B2 = $1M / $0.

The choice may seem intuitively simple in different ways to different people and for different reasons. It is precisely this that makes Newcomb's problem still a paradox that is difficult to explain. Indeed, an unequivocally correct choice seems to be absent, and this is on the basis of the utility we assign to causality or evidence. In fact, as we will see shortly, a causal versus an evidential approach lead to a different answer as to what should be the most correct course of action.

The causal decision theorist would in fact state that: The predictor, while nearly infallible, is not a deity, and there is always a percentage chance, albeit a very small one, that he will be wrong. Moreover, his prediction, at the time of our choice, has already been made and the amount of money has already been placed inside the box. Consequently, our choosing B1 + B2, rather than solely B2, cannot change the outcome of what we find inside the B2 box. Following this logic and

respecting the fact that we will always find the $1,000 in B1, the most instrumentally rational choice in this case would be to always choose B1 + B2, since we would always earn the $1,000 and have a chance of also earning the $1M, whereas by choosing only B2 our expected outcome might be $1M / $0. In short, it is the presence of that $1,000 that shifts the balance in favor of the B1 + B2 choice. This is because "the traditional principle of maximizing expected utility treats the expected utility of an action A, EU(A), as the weighted sum of the utilities of its (exclusive) possible outcomes, weighted by their probabilities, which sum to 1" (Nozick 1995, pp. 42,43). Where for causal decision theorists, probability is determined on the basis of a "casual-probabilistic relation indicating direct causal influence" (Nozick 1995, p. 43).

However, from the perspective of an evidential decision theorist, his causal opponent seems not to consider all relevant factors. While it is true that from the causal point of view our choice does not change the prediction of the predictor and, that there is a small though possible probability that the predictor was wrong, it is also true that the evidence tells us that the probability that the prediction made is correct is much higher. This evidence, i.e. the awareness of the possibility of becoming a millionaire, would represent a more than valid reason for choosing only B2 and consequently maximizing expected utility. In fact, according to evidential decision theory, the traditional principle of maximizing expected utility is more appropriate if we emphasize that our expected utility should be calculated "not by the simple probabilities of the outcomes but by the conditional probabilities of the outcomes given the actions" (Nozick 1995, p. 43). Newcomb's problem thus highlights how causal decision theorists and evidential decision theorists suggest as rational two different paths toward maximizing the utility intrinsic to our decision. The former determine, on the basis of causal force, a causal expected utility (CEU) suggesting choice B1 + B2, the latter, aware of the

evidence underlying the context of the action, consider an evidential expected utility (EEU) on the basis of which to choose only B2.

Both positions described, regarding which type of utility to pursue, struggle to claim the right to assert themselves as the absolutely correct setting, highlighting the fact that no matter how convinced one may be of one's theoretical setting, the paradox will always provide equal and opposite justification for the complementary approach. Moreover, this certainty of the decision theorist, whether evidential or causal, is further challenged if we change the initial values we had attributed to the boxes. In fact, it is interesting as Nozick points out that, if that $1,000 figure present in B1 were reduced to a billionth of a dollar, the 'dominant' theory that the choice of the two boxes should turn out, always and everywhere, to be the best — and the best because it is causally better — loses its force. If what we would gain was so paltry, then it perhaps makes more sense to trust in the predictive ability of the super predictor and simply choose box B2. Then again, between a billionth of a dollar and zero dollars, the difference hardly exists. The evidence teaches us that we could do very little with a billionth of a dollar. However, the evidence is clear about the usefulness of a million, and so when in doubt better to bet it all on B2, no? Everyone would act this way. This reflection not only challenges the dominance theory (dominance argument) but also highlights how evidence and context can change the weight that causality seems to possess. The same thing, but in reverse, would happen if in B1 instead of $1,000 there was $900,000. In short, "by varying the amount of money in the first box, we can make people extremely uncomfortable with their otherwise favored argument for choice in Newcomb's initial problem" (Nozick 1995, p. 44).

So, what does Newcomb's problem teach us? Besides the fact that there may be contexts in which evidence exceeds causality and vice versa, the predictor paradox clearly shows us how CEU and EEU in a certain way alone are not enough. Both approaches can conflict with each other and overtake each other.

Taken individually, evidence and causality generate friction between one another that leads our choice to lose information and be less accurate. Therefore, if the two sides of the same coin alone are not enough, it is their union that will provide us with the tool we need to reconsider how to ponder the value to be placed on the means necessary for the proper fulfillment of our decision making. And this union comes about through a concept developed by Robert Nozick himself. In fact, the latter suggests replacing the individual EEUs and CEUs with a summation composed of the two utilities named 'Decision Value' (DV). That is, a value weighted on the basis of "person's confidence in being guided by each of these two kinds of expected utility" (Nozick 1995, p. 45) and defined schematically by the following formula:

$$DV(A) = Wc \times CEU(A) + We \times EEU(A)$$[64] (Nozick 1995, p. 45)

The agent subject in this way would replace its imperative regarding choosing the means that leads to maximum expected utility with the exhortation to maximize its own decision-value.

Using DV implies the possibility of a coexistence between EEUs and CEUs, a coexistence that, depending on how the decision scales hang, will lead the rational agent to consider one of the two EUs more than the other. This creates, through DV, a global expected utility (GEU) that manages to account for that global rationality that we had previously mentioned and toward which we have continued to move.

However, there seem to be elements of the Real that the EEU and CEU fail to exhaust. Indeed, these two utilities account for the hard part of a natural

[64] I provide here a brief explication of the components of the formula: (A) stands for a certain act. DV stands for the decision value of the act. Wc stands for the weight attributed to the expected utility principle of causal decision theory. CEU(A) stands for the causally expected utility of the act. We stands for the weight attributed to the expected utility principle of evidential decision theory. EEU(A) stands for the evidentially expected utility of the act. For further clarification compare (Nozick 1995, p. 45).

agent's life. Cause and evidence appear to be the only two things that matter for the purpose of determining DV. Therefore, facts, reasons and their objective value, on the basis of the means-end relationship that these underlie, would suffice to choose. In short, the instrumental part of our rationality would suffice. But the life of a rational agent is also the life of an individual steeped in beliefs, values and symbols. And it is precisely on the basis of this other sphere of the life of a rational agent that DV must be extended. This is in order to account for all that exceeds the causal and evidential complex of the subject, that is, all the 'other' elements that make up a decisive piece of our action.

DV needs an additional utility, namely, symbolic utility. Symbolic utility (SU) becomes the fundamental third element for the correct globality of our decision. A utility, which "incorporates the utility of the various outcomes and actions symbolized by the act, with its own associated weight Ws. The formula for the decision-value of A, DV(A), then would become:

$$DV(A) = Wc \times CEU(A) + We \times EEU(A) + Ws \times SU(A)$$[65]

(Nozick 1995, p. 48)

But what exactly do we mean by symbolic? In what sense should this SU be understood? It would seem to be something extraneous, a separate utility that is forcibly inserted into our DV and is too susceptible to context to be trusted. To clarify these doubts, it is useful to consider in what terms Nozick himself, the proponent of this perspective, describes it:

> *Symbolic utility is not a different kind of utility, standing to standard utility in something like the way that metaphorical meaning stands to literal. Rather, symbolic utility is a different kind of connection—symbolic—to*

[65] For the correct understanding of the elements added to the formula, the same guidance given in footnote 64 applies.

the familiar kind of utility. It stands alongside the already familiar connections, the causal and the evidential. The symbolic utility of an action A is determined by A's having symbolic connections to outcomes (and perhaps to other actions) that themselves have the standard kind of utility, just as the CEU of A is determined by A's causal-probabilistic connections to outcomes with the standard utility. (Nozick 1995, p. 48)

As a connection, the SU represents the glue between the preceding EUs and the reality of a rational agent who , in carrying out his or her decisions, knowingly or unknowingly expresses himself or herself[66]. The symbolic connection present within the decision frame represents the need on the part of the agent subject to provide himself, and the world, with a precise image. Here, acting causally or evidentially can 'stand for' something else. To take a certain action rather than another, or to choose one means rather than another may be a whole series of dynamics that symbolically project an image of the agent subject into the context in which the agent subject is acting. The relationship that is established within DV due to SU is the necessary realization that any action, taken on the basis of cause or evidence, will give back to the self and others a certain piece of information. That is, that on the basis of which to form an idea about the agent, why he acted in a certain way and what his motivations were. The SU not only represents an independent value element that can change the summation determining DV in order to choose a course of events, but also provides the structural

[66] This is because the acting subject is placed within a social horizon composed of different value arrangements in which every action leaves a trace of the kind of person we are and the way we move in the world. The need to express oneself, if we want to call it that, is not something from which we can separate ourselves, but a structural condition of the subject that is based on the possibility of judging the action. Each expressed element emerges through and at the end of the rational process finding its explicit manifestation in action. And it is the latter that is judged. Doing so is retrospectively the very subject who performed it and the other individuals who can determine its effects and process. As a result, this possibility of judging takes on a constitutive value that assigns a role to the social context and to others, holding ourselves responsible for what kind of person we want to manifest and attributing to others the power to confirm or disprove that image.

element in order to understand why, based on values and beliefs, we act in a certain way in order to return a clear projection of how we understand ourselves as rational agents.

The symbolic part of our rationality, therefore, not only allows us to understand the connection between something intended to mean something 'else', such as an action performed to ward off misfortune[67], but also allows the subject to make sense of the will to express something that identifies him or her within the context in which he or she acts and, more importantly, gives meaning to the action itself. And the justification of this dynamic is found in everyday life. Let us consider two examples. (1) A person wakes up late to go to work. Her goal is to get to the office as soon as possible, and to do so she would have to take the car. However, this person firmly believes that respecting the environment is important, and she cares about other people recognizing in her the care she takes for this belief. In addition, the protagonist of this story wants to prove to herself that she is a person who believes in the importance of preserving the environment. This whole set of elements will lead this person to choose, in spite of everything, to travel to the office by bicycle. The point is that the person in question has never ceased to regard as her own the goal of getting to the office in the fastest way, but the need to express a certain value structure has altered the calculation of utility with respect to the decision to be made. Alternatively (2) consider a person who wants at all costs to show herself as charismatic. The latter, during a conversation with a group of acquaintances, ends up making an unpleasant joke. Aware of her mistake, this person aims to rectify her slip-up. However, instead of apologizing and admitting that she has gone too far, having the need not to

[67] Here one could retort that a simply causal connection is established between the accomplished gesture and the misfortune, but this is not the case. What is causal is simply the whole process that takes the subject from the deliberative stage to the movement of the body — for example, through the activation of a series of muscles. Whereas a different kind of relationship is established between the act performed and the purpose of avoiding misfortune. Our wanting to ward off misfortune cannot and can never be caused by a bodily means, but the whole causal system constituting our moving bodily can, through a symbolic connection, determine and justify the utility of our action.

fail in her own intimate need to express to herself and others this image of a charismatic individual, she ends up joking again about what happened. These trivial and deliberately roughly sketched examples seem to be everyday dynamics to which we give no weight, and which are often trashed as being part of each individual's personal disposition. But as we have learned and as we have highlighted up to this point, every choice stems from a certain rational process that has a definite decision-making value at its basis. Let us therefore try to use a more conceptually accurate example.

This structural and qualitative leap finds its explication through the 'prisoner's dilemma'[68]. In fact, within a dynamic such as this, turning the tables considering the SU, it could very well be the prisoners' willingness and need to return an image of themselves as individuals who value not snitching within the criminal world. The need to express themselves as agents bound by the promise to follow a code of honor may have a strong symbolic value for the prisoners presented in the dilemma. However, this element is overlooked in the classical treatment of the problem, which focuses primarily on the causal value of choice. The consequence is that an important share of the value of the decision is lost. Ultimately, "to say all this about symbolic utility is to say that our responses to the Prisoner's Dilemma are governed, in part, by our view of the kind of person we wish to be and the kinds of ways we wish to relate to others" (Nozick 1995, p. 57).

[68] The dilemma is part of the tradition associated with game theory and was proposed by Albert Tucker in the 1950s. The dilemma sees two prisoners incarcerated in two separate cells and unable to communicate, engaged in a choice that could affect their time in custody. The choices presented to the two prisoners are to cooperate, or not, with law enforcement, knowing, however, that based on their choice they could get different results: 1) If only one of the two prisoners cooperates by accusing the other the first will be rewarded with the minimum sentence and the other with the maximum. 2) If both prisoners cooperate by accusing each other they will both receive a sentence close to the maximum penalty. 3) If both prisoners do not cooperate by avoiding sentencing each other both will receive a sentence near the minimum penalty. Again, the difference between CEUs and EEUs leads to conflicting conclusions as to what would seem most convenient to do.

It would thus seem that, having arrived at this point, the absolute inexhaustibility of rationality on the part of the instrumental conception comes tottering down. It is precisely the symbolic element that shakes its foundations, and this is because it undermines the very fundamental element that was the basis of instrumentality as we had presented it, namely, its causal character intrinsic to the means-end relationship. If already with the broadening of our decision-making spectrum, thanks to the environmental consideration of EEU, we have moved a step closer to showing the non-totality of the causal domain, it is thanks to the symbolic and SU that we can perhaps break through the edges of a totally instrumental rationality.

5.4. The Symbolic Solution

Before we begin this final paragraph, that will bring us to the end of the journey so far, and which will leave us with an opening toward the possibility of a better understanding of rationality and its broader place in the spectrum of the real, a clarification needs to be made. When we decided to question the apparent exhaustibility of the conception of rationality by its instrumental setting, the intent was never to destroy and eradicate this conception. The symbolic part that we are placing within the decision, and which touches transversely on rationality as we have understood it so far, is not meant to eliminate the importance of awareness of a necessary practical relationship between means and ends, but to highlight how the 'whole' of rationality is not exhausted in that relationship. As the whole of decision-making is not exhausted in its causal and evidential struc-

tural components. So thanks to the symbolic, the practical instrumentality present in rational decision-making is not eliminated, but enlarged. It is shown that not everything is reducible to cause and evidence, but that sometimes the best means, from an instrumentally practical point of view, can give way to a means that symbolizes something else, that conveys a broader need for expression. And this symbolic element that acts as the glue between all the parts that converge toward our rationality is blatantly expressed precisely in the almost totally shared desire to express and understand ourselves, through our practicality, as rational persons. The symbolic therefore unites and expresses, but above all it is positioned as that low tone at the base of rationality. A bass whose precise note is one that resonates with the need to "be" rational. And this is from a practical, theoretical, personal and social point of view. The symbolic stands as a pivotal point for the overall arrangement of rationality toward which we have walked so far. Not by destroying, but by uniting and enlarging.

Let us now technically outline more precisely in what terms the concept of the symbolic is structurally situated within our conception of rationality. First of all, we have highlighted how, "having a symbolic meaning, the actions are treated as having the utility of what they symbolically mean. [So], the action (or one of its outcomes) symbolizes a certain situation, and the utility of this symbolized situation is imputed back, through the symbolic connection, to the action itself" (Nozick 1995, pp. 26,27). This within the practical dynamics of decision-making allows us to clarify how "for the symbolic action to get done, it must somehow come to have a higher utility, a higher number that represents the maximand, than the other actions available to the agent"[69] (Nozick 1995, p. 27). But in what terms is this utility expressed? We have defined it within the DV calculus as SU, but we have not specified in what terms this symbolic utility comes to

[69] Nozick, also on page 27, provides an explanation of how this happens: " The action (or one of its outcomes) symbolizes a certain situation, and the utility of this symbolized situation is imputed back, through the symbolic connection, to the action itself".

drastically alter the total value of our decision. Well, it is Nozick again who makes more than clear what we attempted to communicate earlier, and clarifies precisely the value terms of the symbolicity present in rational action. Nozick states that, since symbolic actions can often be expressive actions, as we have tried to make clear, and it is this expressiveness that gives the necessary value to SU. In fact, "the symbolic connection of an action to a situation enables the action to be expressive of some attitude, belief, value, emotion, or whatever. Expressiveness, not utility, is what flows back. What flows back along the symbolic connection to the action is (the possibility of) expressing some particular attitude, belief, value, emotion, and so on. Expressing this has high utility for the person, and so he performs the symbolic action" (Nozick 1995, p. 28). And it is often whole socially recognizable or individually fundamental structures, such as the oft-mentioned being an agent who can be called rational, being a morally[70] upright and law-abiding individual, being a virtuous person, to be expressed. This whole set of social, individual, value and credential elements "symbolically expressed and instantiated by the action, becomes incorporated into that action's (symbolic) utility", thus constituting the essence of its utility for the rational agent. In sum, "we live in a rich symbolic world, partly cultural and partly of our own individual creation, and we thereby escape or expand the limits of our situations, not simply through fantasies but in actions, with the meanings these have. We impute to actions and events utilities coordinate with what they symbolize, and we strive

[70] This passage makes perfectly explicit how the symbolic part is to be regarded as a fundamental component of rationality, which from the beginning of this work we have attempted to describe and in a certain sense justify. Moreover, it also represents a decisive part within decision theory, which, as we have made clear, clutches and coexists with rationality, constituting its enacted practice. And this evidence results from the fundamental separation between what is moral to do and what is useful for us to do. Our moral choice at the expense of utilities represented by the likelihood of a wanted end, highlights how it is our symbolic and rational part that pushes toward a conscious decision-making dynamic in favor of the possibility of expressing a personal and social value and credential set-up. All this in order to move rationally through a filter, that of morality, which symbolically protects us and others at the expense of maximum personal utility. As a result, the symbolic not only broadens our conception of rationality, but also succeeds in bridging that great gap that seemed to radically separate what is useful to do from what is right to do.

to realize (or avoid) them as we would strive for what they stand for" (Nozick 1995, p. 32).

At this point, the need to develop a theory of decision making, and consequently of rationality, that accounts for the symbolic dimension surrounding our reasoning and calculations becomes evident. This symbolic dimension represents the set of extra-causal and evidential factors that envelop the rational agent as a participant in a social world. Where once the objective value inherent in reality provided the basis for the factual reasons we were compelled to follow-believing in their decisive superiority within the instrumental framework linking means to ends-now a deep symbolic layer permeates the entire global structure of rationality and decision-making. A symbolicity, therefore, on the basis of which we recognize and filter that objective and instrumental value that envelops our reasons to act. And on the basis of which we can also choose to ignore that same value, in view of something that 'stands for something else'. But definitely on the basis of which we are able, together with cause and evidence, to make a decision. A decision that is rational, useful, expressive and alive. A rational decision no longer merely mathematical and enclosed within the limits of rigid instrumentality, but open to society and participating in the complexifying progress of history.

Ultimately, what comes alongside the definition of an instrumental rationality based on the correct response to reasons is a:

> *Symbolic rationality: The expression of a decision that stands for an inferential dynamic process based on an input-output objective-subjective value, structured upon believed decisive reasons grounded in causal evidential and symbolic factors.*

Conclusion

Having arrived at this point, we can draw our conclusions regarding the journey so far. We have analyzed the general context in which rationality, as a theoretical philosophical element, emerges, its naturalist conception, and the common approach that any individual can prefigure regarding this faculty that distinguishes us. We have highlighted how rationality should not be regarded as a mere psychophysical characteristic resulting from an intrinsic genetic element present in humans, but as a changing element and the object of constant investigation. It represents a pivotal juncture within a social and cultural context that, in its own right, modifies its meaning. We then went on, with this awareness somewhat left in transparency, to analyze the contemporary context in which different conceptions of rationality emerge and clash in order to focus on one version of it, which sees rationality closely linked to normativity and strict requirements that would determine its rules and operation. Through the critique of this sound approach we have learned to appreciate the necessary practicality of normativity present in rationality while showing, however, the problems related to its exhaustibility in terms of requirements. Through this additional awareness, we were able to shift the focus to a fundamental reconsideration of rationality in terms of its connotation as correctly responding to reasons. Reasons that were then investigated, dissected, questioned, and analyzed by us in such a way as to better understand what we are required to correctly respond to. Armed with this

newfound awareness, we ventured to examine some of the more innovative approaches proposed within the debate regarding rationality in order to resolve the same critical elements we had pointed out regarding the rigidity or one-sidedness of an overly narrow and self-centered approach to rationality. We thus came to outline the limits of the practical rationality with which we find ourselves working and acting today, separating it from its theoretical counterpart and yet showing its complicity.

Fortified by this achievement, we took the fundamental step of questioning the basic conception of this practical rationality, namely, its inexorably instrumental structure. Through the analysis of instrumentality, the means-end relationship and the unequivocal relation to the calculus of utility present in all of our decisions, we have shown the close link between rationality and decision theory. Thus, thanks to the awareness of these links between the two fundamental spheres of our action, we were able to reveal how, at the basis of every one of our directions toward an end, there is not only causal force, but also an evidential world and, above all, a symbolic link. A bond that not only changes the estimate of the scales of our acting, but also determines the acting person we decide to express. The same person, who as a rational person is placed in a society, in a time, in a culture rich in value and credential arrangements. Thanks to the symbolic, we not only enlarge the practical structure of our rationality, but we are also able to close the circle. A circle that was opened with the necessary awareness of a rationality to be placed in a human and social context, which, precisely as such, turns out to be a symbolic context.

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