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Why rational choice? Reconciling Kornai with rational choice theory

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ABSTRACT

János Kornai was an early and influential critic of rational choice theory, who opposed its application to interdisciplinary questions. In this paper, we attempt to show that certain contemporary uses of rational choice theory are perfectly compatible with Kornai's critique of general equilibrium theory, as well as his broader vision of economics as a mode of understanding. To do so, we leverage the insights of several "ordinary language" philosophers to demonstrate that the utility of rational choice theory derives from its grammatical properties rather than the truth values of its axioms.

KEYWORDS

choice, constraints, explanation, incentives, ordinary language, rational choice, rationality

JEL CLASSIFICATION INDICES

A11, B31, B40, B50

WHOSE RATIONALITY?

Years before the onset of modern behavioural economics, János Kornai provided an extensive critique of the descriptive accuracy and applied utility of rational choice theory in *Anti-Equilibrium* (1971). To do so, he distinguished between several interpretations of rational choice theory used by economists according to how they used the concept of equilibrium. The most

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significant division he identified was whether economists choose to investigate the static properties of two stable partial equilibrium points, or the dynamic path of how an economic system reaches general equilibrium (*op. cit.* 7). Kornai pointed out that these two different types of investigations lead to two different interpretations of the underlying rationality axiom. The first is the "static" interpretation, which stipulates that people will respond to a change in exogenous parameters in a way that maximizes their objective function, and that this response defines the new equilibrium point in the subsequent period. The second is the "dynamic" interpretation, which states that individuals will efficiently maximize a specified objective function *over time* (ibid).

In this paper we defend the social scientific utility of rational choice theory interpreted according to the static manner. We argue that Kornai's analysis does not accurately describe its social scientific function, and that, seen properly, it is perfectly compatible with both Kornai's vision of economics as well as his rejection of other varieties of rational choice theory.

Among economists of the last hundred years, the dominant "neoclassical" understanding of rational choice has been in the context of *dynamic* models. Kornai described the notion of rationality in these models as a property of agents whose preference orderings possessed the properties of "freedom from contradiction and of temporal consistency." Throughout this paper we will refer to this interpretation of rational choice theory as "D-RCT." These assumptions enable economists to parameterize the preferences of agents in order to imply determinate predictions about their future behaviour (2006: 185). In the strictest formulation of this idea, rational agents are fully cognizant of all their possible choices, have perfect foreknowledge of each outcome, and have a complete, well-ordered preference ranking of each state (Weintraub 2002). At a minimum, neoclassical rationality requires agents to have "unbiased" expectations of possible future outcomes, ranked according to a set of complete and transitive preferences (Mas-Colell et al. 1995: 42). These conditions are closely connected to the requirements for conducting the dynamic analysis of movement *between* stable general equilibrium states. Transitivity and completeness are needed to ensure the presence of a maximally preferred element in an individual's choice set, while temporal consistency is often assumed since some parameters must be held stationary through time in order to compute a determinate path of adjustment (Arrow 1986; Fishburn 1991).

The dynamic interpretation is often used in conjunction with Samuelson's theory of "revealed preference" whereby these criteria are compared against empirical observations of an agent's sequential choices made in real-time (Kornai 1971: 125–126). The consumer's decisions and their intertemporal consistency is then interpreted to reflect the content and rationality of their underlying preferences (Samuelson 1938; Samuelson 1947: 152–153). This comparison can either be done for predictive purposes, or as a normative measure of how skilled individuals are optimizing what the economist thinks agents ought to value. Thus, through the lens of neoclassical economics, dynamic rational choice theory can be seen as either a falsifiable scientific hypothesis, or a normative theory of ideal behaviour. Kornai refers to these two perspectives as the "descriptive-explanatory" and "normative theory" interpretations (1971: 130).

As the formalization of neoclassical general equilibrium theory was taking place, a parallel understanding of rational choice theory emerged among students of Max Weber, most notably through the work of Frank Knight and Ludwig von Mises. This methodological approach was

united by the adoption of what Kornai called the "static" interpretation of rational choice theory (which we will refer to as simply "S-RCT" [1971: 7, 134]). In this interpretation, agents possess what Tibur Rutar recently described as "intentional action" rationality (Leeson 2020; Rutar 2020: 54).[1] Within this paradigm agents are said to be rational if they act at any given moment with the intention of attaining the most preferable state of affairs among their perceived set of attainable outcomes – which they are axiomatically assumed to do (Leeson 2020). Because this framework still represents an agent's decision as the outcome of the constrained maximization of a preference function, the properties of transitivity and completeness are necessarily implied. However, unlike under the dynamic interpretation, these do not constitute empirical predictions that can be tested against the consistency of reported or revealed preferences. Instead, they are imposed as a restriction on what constitutes a permissible rational choice explanation.

In this manner, agents are *assumed* to behave rationally. S-RCT offers social scientists a general recipe for creating explanations that show why rational individuals might engage in an observed behaviour. Doing so involves identifying an agent's goals and constraints within a given environment, from which their behaviour *could* be represented as the rational outcome of the constrained optimization of an objective function. The objective function itself is not a falsifiable hypothesis about an actual object or structure in the mind, but the analytical picture of a choice. In S-RCT, the rationality postulate belongs to the class of propositions Wittgenstein identifies in *On Certainty* that have the superficial appearance of contingent propositions, but are functionally closer to grammatical claims (1969). The key point is that within the language-game of S-RCT, there is no relevant circumstance that would give an intelligible meaning to an expression of doubt or denial of the rationality postulate, since the proposition functions to define the grounds on which the game is played. S-RCT explanations are tailored to show how one state of social affairs can be understood as a rational response to a received set of social and environmental constraints.

Thus, within the context of doing explanatory social science, denying the rationality postulate does not constitute the denial of any cognizable empirical fact, but rather a denial that one ought to search for motivating reasons incentivizing a form of human behaviour. There could very well be circumstances where this is a rational thing to do. If someone told us our rational choice explanation of why humans sneeze is invalid because sneezing is not rational, we would reasonably consider him to mean that sneezing is rarely experienced as a choice. In that case, the incentives we identify would only *explain* a miniscule portion of sneezing-behaviour. This would be a roundabout, but polite way of saying that our theory is probably a waste of everyone's time, including our own. In a very different context, someone might assert it is inappropriate to formulate a rational choice theory of genocide, because genocide is irrational. Unlike sneezing, most people would probably describe genocide as a choice, but in this case, they would clearly be making a normative point; genocide is so evil that no incentive should ever be considered a "good," "sufficient," or "intelligible" reason for committing one. The logic is that if we assumed that everyone should have strong lexicographic preferences against genocide, no plausible set of incentives or constraints (i.e., non-preference based explanatory factors) should make it any more coherent. The point is that whether one agrees with those arguments or not, they are not scientific claims we can marshal evidence for or against. They are normative claims about when

[1]This view of rational behaviour is sometimes said to describe "the logic of choice" (Hayek 1937).

it is appropriate or worthwhile to play the language-game of rational choice theory. As we will show, Kornai recognized that reasons prevented S-RCT from being open to empirical falsification, but mistakenly concluded that this implied it lacked a valid social scientific function.

KORNAI AGAINST RATIONAL CHOICE

After his introduction to the work of western economists, János Kornai initially adopted the dynamic interpretation of rational choice theory as his "main conceptual framework," most notably using it as the foundations for the Kornai-Lipták model of two-level planning (2006: 133). However, by the 1970s, he had dramatically revised his opinions. In his 1971 book *Anti-Equilibrium*, Kornai presented his objections as a systematic critique of both general equilibrium theory, and the rational choice assumptions from which it was derived. Here Kornai introduced his taxonomy of the different varieties of rational choice theory. He organized his criticisms of rational choice theory according to whether they applied to the

- *dynamic, normative theory* interpretation,
- the *dynamic, descriptive-explanatory* interpretation, or
- the *static, descriptive-explanatory* interpretation (1971: 134).

The key distinction is that under the *descriptive-explanatory* interpretation, D-RCT is seen as a "descriptive, *real science* theory" that hypothesizes that individuals effectively possess a preference function, consisting of a complete set of stable, well-ordered preferences, and that their decisions will be temporally consistent with this preference function across different choice scenarios (Kornai 1971: 130). Alternatively, Kornai described the normative interpretation of D-RCT as a perspective that interpreted rational choice theory as a theory of optimal behaviour that we can use as a normative benchmark for comparison with observed outcomes (1971: 130–131).

Kornai's critique in *Anti-Equilibrium* primarily focused on the normative and descriptive-explanatory interpretations of D-RCT. His arguments against these two variants are too extensive to be summarized here, but we should note that they do not overlap with his criticisms of S-RCT, which he grounded on an entirely different set of objections. In contrast to the dozens of pages he spent on the different empirical and conceptual problems with the two D-RCT interpretations, Kornai only used half a page to reject S-RCT for what he saw as a damning reason. He noted that the theory can be reduced to the tautologous proposition, "that in period t the decision-maker chooses what he prefers" and "had he not preferred the choice actually made he would have chosen something else" (Kornai 1971: 133). Since this axiom takes the form of a grammatical rule rather than a substantive hypothesis, he quickly concludes the theory is unfalsifiable and thus is ineligible to serve as a "descriptive-explanatory real-science theory" (Kornai 1971: 133). As such, he argued that it fails to say anything useful about real-world behaviour, and so offers no answers to any of the questions that economists investigate. In his words, "The task [of economics] is to explain why he chose precisely this alternative rather than another one. This task cannot, however, be solved if the model is interpreted in a static sense" (Kornai 1971: 133).

Kornai's perspective continued to evolve throughout his career, and he later stated about *Anti-Equilibrium* that he saw "serious errors in the theoretical starting points of my critique,

within the philosophy of science" (2006: 183). However, he never directly recanted his criticisms of S-RCT. His research largely moved away from optimization models in favour of "more elementary" systems of differential equations (2006: 230). Exactly why Kornai continued to oppose the use of S-RCT as a conceptual framework is not entirely clear, but he was sceptical of the ability to practically distinguish between constraints and preferences in the case of "unique and non-recurring" decisions (2006: 186–187). Alternatively, there are some grounds to speculate that his early experiences with Marxism may have left him with a distaste for any social scientific pretensions towards a universalizing conceptual framework (Kornai 2006: 186). Consider the comparison he made between the followers of Marx and Weber.

> "My experience, especially in the academic world, is that people cling more tightly to their vocabularies than to the views they express with the words included in those vocabularies. Their compulsive insistence is upon a vocabulary which have been hammered into their heads, or to use a more elegant term, which has become imprinted in their minds by the reading matter and lectures that have affected them most. If that is how it was put by Marx, Max Weber or Polanyi (or whoever made the biggest impression on them), it cannot be put otherwise." (Kornai 2016: 551)

Considering Weber's influence in the development of S-RCT, it seems likely that this was what he had in mind. If this is the case, it also suggests that Kornai had come to recognize S-RCT as a social scientific grammar and vocabulary, only he did not see the utility of it as such. For the rest of this paper, we will attempt to defend the value of S-RCT as a common social scientific language.

S-RCT IS GOOD GRAMMAR

"*We, as a rule, run worse, not better,*
if we think a lot about our feet." (Ryle 1953: 185)

We maintain that Kornai's critique of S-RCT in *Anti-Equilibrium* neither describes, nor applies to the manner in which contemporary practitioners of S-RCT actually use it.[2] Kornai identified some properties of S-RCT, but did not appreciate how it helps social scientists explain social phenomena, and so reached an erroneous conclusion regarding *why* they use it. In *Anti-Equilibrium*, Kornai appears to have mistaken a set of rules for developing explanations of human choice with a theory of the causal mechanics underlying human choices.

Nitpicking language and word choice is rarely productive for scientific discussions (even when not outright sophistry), but here it is necessary to describe the social process of explanation and to improve the effective communication of ideas. To do this, we leverage techniques

[2]The critique that S-RCT is composed of tautological claims, and therefore descriptively uninformative is one that is most often made against Austrian economists who make use of S-RCT. Those who identify as "Austrian" have typically responded to this critique with epistemological and metaphysical justifications, and often by defending the status of synthetic *a priori* propositions (Cowan – Rizzo 1996; Leeson – Boettke 2006). In this paper we opt to take a different strategy and show the basis for its utility without appealing to the truth value of any of its theoretical propositions.

associated with the "ordinary language philosophy" that developed from the later work of Wittgenstein and his contemporaries at Oxford.[3] The main principle we apply is his insight that we make sense of language – technical or ordinary – in light of its social use in the context of our day-to-day lives (Ryle 1953; Wittgenstein 2009).[4] When disagreements over the interpretation of a technical or analytic system arise, the clarity of a given interpretation must be judged in relation to its sensibility with respect to our ordinary norms, language, and behaviour. Accordingly, we attempt to explain the function of S-RCT in ordinary, non-technical, language.[5]

By Kornai's own definition, economics is a discipline with the task of explaining *why* people make some choices and not others (Kornai 1971: 133).[6] To do this effectively, economists must adhere to the public standards for what constitutes a "good explanation," while also answering the substance of the question as directly as possible. The goals of any "explanation" are to render a phenomenon clear and intelligible for others. As with any form of communication, the clarity and intelligibility of an explanation are a product of agreement with the norms of a community's shared language. On this basis, a good explanation of *why* a social phenomenon occurs is "good" only if the explanation satisfies the curiosity of one's audience by providing the type of information they are seeking. Therefore, we must specify the kind of information that is typically being requested when we are asked *why* people make certain *choices*.

When used as an adverb, "why" commonly refers to a question regarding the "cause, reason, or purpose" of a phenomenon, and when used as a noun it refers to the reason or cause itself (Merriam-Webster 2023b; Oxford English Dictionary 2023b, 2023c). This conceptual overlap points to a very old division in perspectives on the nature of the social sciences. Is it their task to model the causal mechanics of social behaviour in a manner that generates correct and operational predictions (Friedman 1953)? Or is it to help us better understand human behaviour by identifying the intelligible reasons that incentivize individuals to make the choices we observe? Is a complete account of social phenomena, in principle, derivable from the methods and theories of the natural sciences, or does it deal with a different kind of phenomena altogether (Anscombe 1981; Winch 2008)? At the time in which *Anti-Equilibrium* was written, the dominant Samuelsonian interpretation of D-RCT was largely developed with the former perspective of the social

[3]This term was originally a pejorative label assigned by critics, but has been embraced to different degrees by philosophers in the years since. Wittgenstein rejected any labels for his own thought, since he did not view himself as contributing a cohesive positive theory to philosophy, but rather as clarifying a series of confusions about language that he saw as creating the different philosophical "problems" that philosophers have traditionally concerned themselves with (Wittgenstein 2009).

[4]This contrasts with the notion of "meaning" as an imminent, *a priori* or "private" internal experience (Wittgenstein 2009). Unless it could be adequately defined in terms of external context or behavior, "meaning" would not serve any social, communicative, or cognitive function in language. Of course, this applies to other abstract concepts as well, including the ones we use to discuss ordinary language as such. Since this can only be done by a discussion of the informal norms of our language, this matter concerns the "art" rather than the "science" of economics.

[5]While we confine our analysis to English language expressions, there is obviously a great deal of continuity in these fundamental concepts and "language games" across cultures.

[6]Not to be confused with decision theory, which is much more closely related to D-RCT, and is concerned with the statistical properties of our decision-making behavior. Decision theory does not search for reasons *why* individuals make choices, but attempts to use the tools of probability theory to describe or prescribe strategies of human decision-making in decision-settings with quantifiable values (Berger 2013).

sciences in mind. It was read as a model of the *causes* of social behaviour that was to be evaluated according to positivist criteria (Samuelson 2016).

In contrast, practitioners of S-RCT do not seek to identify *causes* of behaviour, but *reasons* (or *grounds*) for it. This is because, when discussing social interactions, the question "why" is generally reserved to inquire about the motivations of human behaviour insofar as it falls within the control of human agency, and is thus the product of *choice*. The notion of choice strongly implies that the explanandum is undetermined prior to an agent's act of selection between two or more possible alternatives (Anscombe 2018; Merriam-Webster 2023a; Oxford English Dictionary 2023a). When used non-rhetorically, the question "why" indicates ignorance regarding the purpose, reason, or desired end that a behaviour achieves. We ask it when we observe others do something we do not perceive to be intrinsically desirable, and we are unaware of how it achieves a desirable end consistent with a cognizable set of preferences. To give a direct answer to this question, we have to identify the subjective reasons behind a choice.[7] While one could give a mechanical account of the correlated neural or environmental events that precede a decision, it would be a category error to call this an explanation of a *choice* because it is untethered to the use of agency implied in the very notion (Wittgenstein et al. 1969; Anscombe 1981; Bennet – Hacker 2022).[8] The question "why did the dinosaurs go extinct" is not the same kind of question as "why did Napoleon return from his exile on Elba?" If someone asked us to explain the latter case, we would not answer the question if we said, "because his legs exerted a directional force on the ground that propelled him onto a ship that the wind then blew towards southern France." Instead, it would be expected that we provide cognizable reasons for why Napoleon would make this choice such as, "the Coalition had been weakened by political division and he had heard rumours that he was to be assassinated anyways." More generally, we can satisfy a "why" question in two ways. Either we can answer the question by filling the gap in others' knowledge, or we can attempt to reframe the perceptions of others in a way that erases the appearance of a gap needing to be filled. The second method is not so abstract as it sounds. It is what we do whenever a question is poorly formulated or based on a false premise. It is what we would do if someone asked, "why did George Washington issue the emancipation proclamation in 1945?"

S-RCT is structured to respond to the "why" questions in the first manner, by providing direct answers, regardless of how well-formulated the question is. S-RCT constitutes a framework for organizing reasons in a consistent and intelligible fashion to help us better understand why someone would *choose* to perform a particular action. It is a set of rules for doing social science, not a social scientific hypothesis in itself. In other words, S-RCT seeks to help others explain social phenomena, but does not directly hypothesize any substantial facts that would restrict the permissible content of individuals' objective or constraint functions within (Leeson 2020). Instead, S-RCT provides a set of methodological instructions for the social scientist to adhere to when crafting empirical hypotheses to explain why a social phenomenon might arise as the result of intelligible decisions by individuals. It dictates that social scientific explanations

[7]This is simply another way of saying the only relevant incentives (i.e., opportunity costs) are the ones agents perceive prior to a choice (Buchanan 1978).

[8]See Elizabeth Anscombe's reply in her debate with C. S. Lewis for a good explanation of this conceptual distinction (1981).

should be constructed in the form of a valid conditional hypothesis where the observation you seek to explain is predicated on the assumption of agents pursuing a goal under a set of specified constraints. A S-RCT hypothesis must be able to be intuitively expressed in the following form, "if individuals are pursuing these goals under these constraints, then *we would expec*t the observed phenomena to follow."[9] Trivially, a S-RCT explanation can be said to be true if both its conditional hypothesis is true and the empirical claims it asserts are true. Note that the consequent of the conditional proposition will only be true if the hypothesis achieves its objective (i.e., helping others understand a phenomena). If the italicized portion were missing, all S-RCT hypotheses would either be poorly specified causal hypotheses, or else trivially true by virtue of being a conditional statement with a true consequent.[10] What this structure ensures is that even under the truth conditions presented above, an S-RCT hypothesis cannot be said to be true while also failing to help others understand anything about the choices it seeks to explain.

Since S-RCT hypotheses attempt to propose valid (i.e., rational) *grounds* for a behaviour or action (not a proposition), the criteria for their validity is whether the grounds identified are intelligibly sufficient to motivate or incentivize a given behaviour in the context presented. This is, tautologically, only true if one's audience finds them sufficiently intelligible.[11] In the unfortunate cases where a researcher disagrees with his or her entire audience about the validity of a S-RCT hypothesis, the researcher is just as mistaken as they would be if they had defined a word incorrectly, or provided an invalid mathematical proof. If they assert a practice is incentivized by a benefit that others unanimously agree to be a cost, then they have made an invalid inference, and thus have "explained" nothing to anyone. Of course, the individuals in one's audience will often disagree with one another. These cases simply indicate that the questions remain open. The consequent may not have a single absolute truth value by which the validity of an S-RCT hypothesis can be binarily categorized, but might vary along a continuum, or by context, according to the different perspectives within a community.

S-RCT demands economists present the observed choice outcome as the result of a theoretically cognizable process (i.e., a rational choice), which is then empirically evidenced by the

[9]The assumption of rationality simply formalizes the statement that people do not choose *not* to obtain goals that they are assumed to be pursuing unless they have good reasons, like constraints or more preferable alternatives. What this paper seeks to show is that the function of the rationality postulate does not depend on either the claim that it is a necessarily true fact of the world, or that it is a useful enough approximation of real behavior that we should treat it "as if" it was true (Friedman 1953: 425). Instead, it is akin to Moore's statement (139: 26) "here is one hand… and here is another". It is not the kind of statement which it would be meaningful to believe or doubt, but rather a feature of the grammar we use to make sense of the world around us (Wittgenstein et al. 1969).

[10]S-RCT hypotheses are sometimes informally described as making the claim, "had you been in this position, you would have done the same." While this framing is in many ways similar to our own, as a counterfactual conditional claim (where the antecedent is assumed false) it is inferior as a formal framing for scientific hypotheses since it would imply all S-RCT hypotheses are either trivially true (as are all conditional statements with false antecedents according to the logic of material implication), or ambiguous metaphysical claims about the unobservable realities of other possible worlds (von Fintel 2011). We find both unsatisfying.

[11]To deny this would, for all purposes, be equivalent to asserting scientific truth is instead defined by a solipsistic private language (Wittgenstein 2009). The question "what makes an inference valid," in S-RCT or elsewhere, is answered by whether or not it accords with the rules of a particular language-game (Anscombe 1981; Wittgenstein et al. 1969). The meaning of the rules themselves is not determined by the logical structure in which they combine atomistic particles of meaning (this Wittgenstein's own error in the *Tractatus* that he refuted in his later career), but rather the activities, behaviors, and environment that define the context in which a language-game is played (Wittgenstein 2009).

existence of reasons for or against a choice (i.e., incentives), and evaluated based on the feedback others in the social scientific community provide. Thus while (interpreted statically) the theoretical propositions of rational choice theory are not hypotheses, explain nothing, and have no meaningful truth value, the specific explanations created with rational choice theory are hypotheses that are true or false in proportion to the truth of one's premises, and the validity of one's reasoning. As we have discussed, the logical "validity" of a S-RCT hypothesis is formally defined by how reasonable the proposed *reasons* appear in the eyes of other people who are acquainted with the language-game being played (Wittgenstein 2009). If a researcher identifies and adequately describes the relevant missing information about the context of a choice, then the validity of their argument will naturally follow. The difficult and laborious work of S-RCT is the task of discovering and evidencing this missing information through rigorous empirical investigation. For most choices, anyone can easily *imagine* a set of sufficiently extreme circumstances to motivate them, but the circumstances suggested by researchers must be sufficiently convincing descriptions of the actual context in order for others to accept their explanations as true.[12] To aid this, S-RCT is structured so that hypotheses can be mathematically analogized to the solution of a constrained optimization problem. This analogy forces researchers to be clear and consistent when they explain choices as being motivated by changes in the relative magnitudes of different incentives. In many cases, this consistency provides researchers with additional ideas for retrodictions that might evidence their claim. If one can identify missing information that provides motivating grounds for multiple, seemingly unrelated, choices made by the same agents, the perceived intelligibility of their behaviour will generally rise. This is because you are not only identifying reasons to motivate each of these choices individually, but you are also identifying reasons for all of the choices to be correlated rather than crediting the collection to random chance.

WHAT EXPLANATIONS ARE INCOMPATIBLE WITH S-RCT?

As we have shown, S-RCT provides a set of analytical rules for crafting explanations of human choice with "good grammar." While those who deliberately employ S-RCT are a minority in the social sciences, the methodology is compatible with the work of a far larger set of economists including Kornai. However, since the utility of S-RCT derives from the restrictions it places on the properties of a valid explanation, it is not compatible with all forms of social scientific hypotheses. Specifically, the static interpretation is incompatible with any explanation of behaviour that does not *end* with an intelligible human choice, including explanations that attribute durable institutions or behaviours to an erroneous understanding of causation, a failure to learn

[12]This can be illustrated by some of the outlandish theories of pseudo-archaeology. Consider the theory that the ancient Egyptians built the pyramids because they were visited by an advanced alien civilization who brought them cheap, hyper-productive construction technology, and whose spaceships happened to be designed to dock on large pyramid-shaped structures. This theory could be framed as a perfectly valid rational choice hypothesis, but it would be tremendously unconvincing because the grounds it identifies for the choice are so obviously false.

from repeated error, or that explanations that parametrize choice behaviour by treating choices as mechanical responses to stimuli.[13] These types of explanations do not translate to S-RCT, not because they always yield false descriptions of reality, but rather they do not provide any reasons why an agent might deliberately *choose* to engage in a given behaviour.

So, what do all these distinctions look like in practice? A brief illustration can be given based on a contrasting approach to explaining the magical practices of the Azande people in Central Africa. The Azande people attracted the attention of anthropologists in the early 20th century, in part, due to their practice of appealing to oracles to settle interpersonal disputes by using divination rituals to determine whether a person was the target of another's witchcraft or not (Evans-Pritchard 1937). Leeson (2014: 147) proposed a S-RCT explanation for this practice by showing how the oracles' divination rituals reliably generated randomized judgements. This enabled the oracles to create coordinated equilibria in "hawk-dove" social conflicts that would yield superior expected outcomes for both individuals compared to an unmediated mixed-strategy equilibrium. By showing how the practice could have reliably generated superior conflict resolution strategies to common social disputes, this explanation provides an easily understandable *reason* why ordinary individuals would voluntarily choose to submit themselves to a judgment made by sacrificing chickens.

In contrast, Evans-Pritchard provides a clear example of a social scientific explanation that violates the rules of S-RCT by painting the Azande as agents who continually choose to pursue their social ends via inefficient methods due to lack of "objective knowledge of the forces determining their social organization and actuating their social behaviour" (Fortes – Evans-Pritchard 1940: 17–18). Evans-Pritchard (1935: 418) interprets the Azande notion of witchcraft as being a "natural philosophy" with an objectively false "theory of causation" that inhibits more effective practices and institutions from emerging. As such, though he acknowledges the internal logic and social-regulatory function of oracles, he takes for granted that the institution as a whole is suboptimal in this regard, and marked with "insufficiencies and contradictions" (1937: 222). This explanation is incompatible with S-RCT because it implies the practice does not efficiently attain the objective it aims at. Accordingly, the explanation does not provide a reason for why it continues to be practiced other than persistent ignorance produced by a vague notion of cultural path-dependency. As a more recent defender of Evans-Pritchard's analysis put it, "human societies are perfectly capable of massive stupidity and self-defeating behavior." Lerner (1994: 456–457) also describes the Azande as a society "sufficiently stupid to believe, for instance, in the technological efficacy of magic". Whether this is true or not, it does not help us better understand magical practices or reveal motivating reasons for their continued existence.

[13]Ignorance, error, poor feedback, "false" beliefs, and cognitive limitations may all be valid elements of S-RCT hypotheses. However, when we credit differences in behavior to these factors, S-RCT demands we explain why it is too costly for individuals to prefer strategies that would overcome these differences within their particular context. Explanations of choice in S-RCT must always resolve in an intelligible expression of agency.

CONCLUSION

It is ultimately up to each researcher to judge whether rational choice theory helps or impedes the pursuit of their own social scientific objectives. We have presented an argument that Kornai's critique of the "static interpretation" of rational choice theory misunderstands its nature as a shared grammatical framework. S-RCT is not an empirical hypothesis with a truth value, but a set of instructions that constrain the form social scientific explanations can take in order to better answer social scientific questions. We used ordinary language analysis to help illustrate how the methodological constraints stipulated by this framework helps researchers develop more compelling explanations for *why* individuals make the *choices* they do. Insofar as it succeeds in this task there is no conflict between Kornai's critique of the rationality assumption in general equilibrium theory, and the use of rational choice theory in a partial equilibrium setting to improve our explanations of social phenomena. As a result, Kornai's critique does not oblige researchers to reject the use of rational choice theory as a shared conceptual framework. For those working on social questions involving human agency and choice, rational choice theory provides an excellent framework within which vertical scientific progress may occur.

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