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Bread and Bullets

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Bread and Bullets

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Institute for the Study
of Labor

Bread and Bullets

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ABSTRACT

Bread and Bullets*

Standard economics omits the role of narratives (the stories that people tell themselves and others) when they make all kinds of decisions. Narratives play a role in understanding the environment; focusing attention; predicting events; motivating action; assigning social roles and identities; defining power relations; and establishing and conveying social norms. This paper describes the role narratives play in decision making, as it also juxtaposes this description against the backdrop of the Bolshevik-spawned narrative that played a critical role in the history of Russia and the Soviet Union in the 20th Century.

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BREAD AND BULLETS

George A. Akerlof and Dennis J. Snower

This article is concerned with the importance of narratives in decision making, particularly economic decision making. We may characterize a "narrative" as a sequence of causally linked events and their underlying sources, unfolding through time, which may be used as a template for interpreting our ongoing experience (Graesser et al., 1980; Bruner, 1991). The underlying sources of the events include, among many other things, the goals of the narrative's characters (Beach, 2010; Schank and Abelson, 1977), their emotions (Oatley, 1992) and identities (McAdams 2001). Narratives are simplified accounts of events that tend to be crucially concerned with issues of balance -- between the needs of the individual versus the social group, between material and non-material aspirations, between self-interest and altruism, between humankind and nature, and so on. These issues are of central importance, since narratives implicitly recognize that balance in these senses is essential to human well-being.

Narratives serve a variety of purposes, which can be shown to have important implications for decision making. From the many functions of narratives that have been described in various literatures of the social sciences and humanities (especially psychology, sociology, anthropology, narratology and literary criticism), this article highlights the following interrelated roles of narratives in decision formation:

1. *Understanding the environment*: Narratives help us gain a conceptual understanding of our internal and external environment. They do so by providing simple mental models whereby we can identify causal relations that enable us to account for past and present events in terms of antecedent events. In particular, narratives provide alternative scenarios that enable us to envision past and present events in terms of what happened previously. They thereby play a role in our (conscious or unconscious) adoption of ascribe the causal relations that serve as our explanation of past and present events, where the adoption may depend on motivational criteria such as maximizing explanatory power, minimizing potentially harmful misinterpretations, minimizing anxiety, and so on.
2. *Focusing attention*: Narratives focus our attention on particular types of events and particular causal relations concerning these events. Narratives thereby have a strong influence on our economic decisions, since we can only make choices with regard to the domain of possibilities that lies within our field of attention. This attentional field is generally quite limited relative to

the complete domain of possibilities. Narratives serve as a filter for screening data in this regard.

3. *Predicting events*: By making particular causal relations salient, narratives bring these relationships into our attentional field when we predict events, including when we predict the future implications of our current actions.

4. *Motivating action*: In bringing particular causal relations to our attention, narratives activate particular motives in us.[a] Our motives are diverse and may include self-interested wanting, concern for the well-being of others, affiliation with others in our social groups, achievement seeking, status seeking, anger, fear, play, sexual gratification, and more. Different motives are associated with different objectives. Narratives interpret people's intentions and thereby influence the motivations that become activated. By helping us predict the future, narratives help us reduce our anxiety in the face of uncertainty.

5. *Social assignments and identities*: Narratives assign social roles to people, placing them into well-defined relationships with respect to one another. In doing so, narratives help establish and maintain people's social identities which, in turn, shape their motives and objectives.

6. *Power relationships*: By assigning social roles, narratives establish and maintain power relationships among people. Narratives fulfill this role when they gain legitimacy within specified social groups, defining hierarchies of legitimate power. Having gained legitimacy, the resulting power relationships may be reinforced or even replaced by instruments of coercion.

7. *Social norms.* Narratives teach people social norms and furthermore help explain why we ourselves should obey those norms, and where and when we should punish others who disobey them.

These roles of narratives are irrelevant to mainstream economic analysis for a simple reason. By explaining economic decisions under the assumptions of Homo Economicus – internally coherent, self-interested, context independent and temporally stable preferences; and means-end rationality applied to a determinate, objectively observable environment – mainstream economic analysis leaves no role for narratives to play in shaping people's objectives and constraints. The empirical deficiencies of this model of human nature have been highlighted by various disciplines (including psychology, neuroscience, anthropology, sociology, cognitive science and evolutionary biology), leading to a variety of conceptual extensions in behavioral economics. Yet behavioral economics has thus far also had little to say about the role of narratives, leading us to believe that further

[a] In addition, our motives also influence the causal relations that are brought to our attention and thereby influence the narratives we adopt.

significant modifications of our conception of human nature are necessary before the impact of narratives on economic decisions can be appreciated.

An effective way of understanding the roles of narratives is to consider a particularly powerful narrative in recent history: the one underlying the rise of the Soviet economic system. There can be little doubt about the importance of narrative in transforming economic life in Russia and its satellite countries, for without a story that served to explain the need for a radical transformation, Lenin, Trotsky, Stalin and other major Russian political figures could not have induced others to act in accordance with their visions. By examining the role that narrative played in establishing and maintaining the Soviet economic system, we can illustrate dramatically the various roles that narratives play in shaping economic decisions. The historic significance of these roles makes it easy to appreciate the need for including narratives in economic analysis.

In what follows, we will offer an account of the Soviet economic system (in italics), interrupted by commentaries explaining the various roles that narratives play in decision making. It is important to emphasize that our account of the Soviet system - like all historical accounts - is itself a narrative. In fact, it is a disputed narrative, one that has gained much credence in the West, but was obviously not shared by the people involved in establishing the Soviet system.

AN OPENING

Let's begin on the smallest scale, with a joke, from the later, somewhat-less-severe years of the Communist rule.

> *A man walks into a grocery store with a notebook. "Do you have sausage?" "No." He makes a note. "Bread?" "No." He makes another note. "20 years ago, they would have shot you for making notes like that," says a woman waiting in line. "No bullets either," he writes.*

This joke is only 49 words. But it is indicative of how the Soviet system worked at every scale. This turns out to be an appropriate opening for our historical account, because it frames our understanding of the Soviet economic system in terms of its ability to satisfy people's basic material needs. Furthermore, as the system was found inadequate by this criterion, the joke sets us on course for two focal questions: In view of its unfolding inadequacy, how did the system manage to get established in the first place? And once its inadequacy had become apparent, how did it maintain itself in power? In these ways the joke sets the terms of reference for what constitutes an

understanding of the relevant environment. The narrative now begins to provide such an understanding.[b]

THE TSAR ABDICATES

Physicists have gleaned important features of the current Universe from its features at the time of the Big Bang. Remarkably, similar inferences can be drawn in political revolutions, which, like the Big Bang, also occur in times of chaos. Yet more remarkably, to a surprising degree, individual national leaders who have lived abroad often affect their countries for generations beyond the revolution by creating the vision of "who we are." To name a few examples: Benjamin Franklin, home from England; Ayatollah Khomeini, home from Paris; Gandhi and Nehru in India, and Jinnah in Pakistan, home from their English educations. In Russia, of course, we are thinking of Lenin, home from Switzerland. We shall see that those empty shelves and the generous use of bullets in the joke were like almost everything else in Soviet history, a result of the "story" he fostered in that primordial time, regarding what was to be done.

The Russian Empire in 1917 was in crisis: militarily, economically, and constitutionally; and also, in the personal life of its leader, Tsar Nicholas II. The military crisis was the result of a foolish decision. In late June 1914, on a visit to the border town of Sarajevo to dedicate a state museum, the Austrian Crown Prince (Franz Ferdinand) was assassinated by a Serbian nationalist. When the Austrians responded by invading Serbia,[c] *the Tsar fulfilled his treaty obligations: he joined the Serbs. In short order the Germans joined the Austrians; the Allies joined the Russians; and the war raged on. At the front, Russian casualties, prisoners and deaths rose into the millions. Behind the lines, famine was breaking out. The Tsar, rather than distance himself from these problems, waded in further. He made himself Commander in Chief of the Armed Forces, headquartered at the Front.*

A further unwise decision double-downed Nicholas' squander of legitimacy. A devoted family man, he had married an accomplished, devoutly religious young woman: Alexandra of Hesse, a granddaughter of Queen Victoria. This prestigious pedigree came, however, with a hidden liability. Victoria was the carrier of hemophilia, and Alexandra's and Nicholas' son, Alexei, was afflicted with this painful genetic disease. A slightly hippie friend introduced

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[b] For historical background on the relevant period of Russian history, see for example Conquest (1987), Fitzpatrick (1994, ch. 2), Malia (1994), Kort (1996), Ulam (1998), Kenez (1999, ch. 2), Service (2000) and Cambridge History of Russia (2006, vol.3, ch. 4,5).

[c] Nominally they were seeking justice for the death of the heir apparent, but *real politique* more likely was the real motive, as the Austrians sought to shore up their position in the Balkans.

Alexandra, in her cup of troubles, to a priest, Rasputin, known for his "hypnotic" powers. When this wildman, with his remarkable hypnotic eyes, visited the Palace, Alexei's pains abated (perhaps calming the Tsarina and thereby acting as an analgesic on the boy's nerve-related pain). Rasputin's influence through Alexandra on state policies—not to mention his voracious appetite for the wives of the nobles—rose to be a public affair. Five nobles put him out of the way—his body parked beneath an ice floe in the Neva. But the military losses, famines, strikes, and Nicholas' unpopularity due to Rasputin were too much. When the troops disobeyed orders to quell a general strike in St. Petersburg, he had to abdicate: on March 2, 1917.

The baton of power was assumed by the fledgling elected parliament, the Duma, which in the current form had been only grudgingly convened by Nicholas eleven years earlier. It now asserted itself to be the Provisional Government of Russia. Not only did it lack historical legitimacy; to make matters worse, the new leaders continued the abortive war. In the capital city, on the left, the workers' elected council (the Petrograd Soviet) immediately claimed dual authority. On the right, in the summer, the provisional government had to stave off an attempt by General Kornilov to re-establish order in St. Petersburg. But these were just two of many instances of general disorder amid massive unemployment; soaring food prices; multiple strikes; and a mutinous military.

Understanding the Environment

Observe how the narrative helps us understand the relevant environment (the first of the six roles summarized above). Specifically, it helps us understand how the Soviet system got established by suggesting a simple answer: a power vacuum into which the Bolsheviks stepped.

To clarify how the narrative performs this role, it is useful to start with the most basic components of narratives: categories. Narratives structure our understanding of the environment analogously to the ways categories do, but at a more complex and integrative level. Thus, by appreciating how categories structure our perceptions and appraisal of the world, we set the stage for recognizing the sense-making role of narratives.

We use categories whenever we see a recognizable thing or do a recognizable action. "Bread" and "Bullets" are categories, for example. Without categories, our environment would be incomprehensible, since we would be unable to use information from one experience (the sight of a piece of bread) to derive implications for another experience (the taste of another piece of bread), since the two experiences could not be brought into relation with one another.

Since most of our categorizing is performed unconsciously, we are generally not aware that our categories are constructed to suit our sensorimotor faculties, believing instead that these

categories correspond to entities in the real world. In fact, this notion - that our mental images are imperfect reflections of objective entities and that the accuracy of the reflection determines the truth of our beliefs - has received widespread support from philosophers through the ages, from Plato to Kant; it is known as the "correspondence theory of truth." According to the associated classical theory of categorization, being a member of a category means fulfilling certain well-defined conditions, which are independent of the subject doing the categorizing.

Alas, since the work of Wittgenstein (1953), Rosch and Lloyd (1978), and much subsequent cognitive science, psychology and neuroscience research on perception, this theory is now recognized as untenable.[d] Instead, scientists have come to realize that our categorization schemes are the outcome of the interplay between our sensorimotor faculties and our environment. For example, we often categorize things in terms of a prototype (the best example of a category, with respect to which other things may be arranged in order to similarity) or an exemplar (a remembered instance of the thing).

In short, our categories are mental constructs that do not simply mirror an objectively observable reality. This is particularly obvious when we categorize abstract entities such as emotions (e.g. anger), social interactions (e.g. enmity), physiological states (e.g. a cold) or political constructs (e.g. a legislature), but it also pertains to simple perceptions of physical objects (for which the perceived entity has been shown to be the outcome of a combination of optical stimuli and cognitive schemata).

Narratives may be characterized as associations of categories, often in terms of causal chains (which are often also identifiable as categories). Given that categories of things and actions involve a significant amount of interpretation, it is clear that narratives, involving the linkages of categories, are far more interpretative. Our categories of things and actions tend to be stable through time (for example, perceptual data that we interpret as a tree has been interpreted in this way from time immemorial), whereas our narratives about the past are often subject to substantial modification. The reason is that our familiar categories have been consistently successful in enabling us to navigate our environment,[e] whereas we often keep revising our narratives in the hope of improving our navigation.

There are a variety of ways in which narratives help us navigate our environment. Consider a set of events E, which are relevant to our wellbeing and a set of potential causes C that include a set of our actions X. In this context, narratives may help us recognize causal links between E and C, including X, such that

[d] For wide-ranging overviews of this topic, see for example Lakoff (1987) and Murphy (2002).
[e] Where this has not been the case (as for "phlogiston") the categories have been dropped.

1. causes *C* come maximally close to being necessary and sufficient conditions for *E*,
2. the causal link between *C* and *E* involve at least some encoding,
3. we are able to identify actions *X* that lead to events *E* with particularly favorable/unfavorable outcomes for our well-being, in order to initiate/avoid such actions,
4. we are able to identify actions *X* that we hope will lead to effective learning opportunities for apprehending necessary or sufficient conditions *C* for events *E*, or to shorter coding to link given conditions *C* to *E*,
5. we are able to identify actions *X*, promoting desirable outcomes *E* and avoiding undesirable outcomes *E*', that are compatible with our current identities,
6. where cooperation among people is required to promote desirable outcomes *E* and avoid undesirable outcomes *E*', we are able to identify actions *X* that are communicable to others and consonant with affiliation to our social in-groups.

The further removed we are from objective (1), the greater is our perceived uncertainty and our associated sense of anxiety; the further from objective (2), the more difficult the narrative is to store, process, manipulate and communicate; the further from objectives (3) and (4), the more helpless we feel; and the further from objective (5), the greater our fear of identity betrayal; and the further from objective (6), the greater our fear of separation anxiety with respect to the social groups to which we belong.

What this list implies is that there are many ways for narratives to help us understand our environment, with objective (1) – the only understanding recognized in mainstream economic analysis – being just one of these. The others involve fulfilling a variety of our needs and desires, including empowerment, achievement, affiliation, curiosity, and so on. Narrative explanations of our environment are not just dispassionate accounts of causes and effects, but are useful as explanations because they enable us to feel good and to avoid feeling bad.

For this reason alone it is clear that narratives play a fundamental sense-making role in economic decision making. Why, then, has this role of narratives been ignored in traditional economic analysis? Traditional economic analysis is based on the correspondence theory of truth. Economic models aim to mirror economic reality as closely as possible, for the given purposes that the models serve (so that, in accord with the principle of Occam's Razor, they are meant to simplify reality in all respects that have no bearing on their stated purposes). Economic theories commonly distinguish between "actual" and "expected" economic variables and between the "real world" and our models of it. Traditional economic analysis does not recognize that economic models, along with the variables and parameters they contain, are ways of structuring our understanding of

economic activities. Nor does it recognize that an important aspect of the appeal of economic models lies in the affective properties of their explanations.

LENIN AND THE BOLSHEVIKS

Into this chaos stepped Vladimir (Ulyanov) Lenin and his Bolshevik comrades. They stood out, even among the far left wing, for their disdain for democracy in all its forms. The naming-event of the Bolshevik party is a tell-tale. In the summer of 1903 the Russian Social Democratic Labor Party (of Marxist revolutionaries) convened in London. The leaders of the party—Lenin, on the one side, and his up-to-then good friend, Juliy Martov, on the other—developed a rift. The disagreement, concerning membership rules, might seem to concern a triviality (such as out of a satire of academia). Lenin wanted party membership reserved to those willing to sacrifice everything themselves, and also expecting such sacrifice from others. Martov wanted to admit mere sympathizers, who supported the Marxist position, if they would "submit to guidance" from leaders. When the meeting ended, the party, already minuscule relative to its goal of starting the Revolution in Russia, split. Lenin called his own side the Bolsheviks (the majority) although they had been the minority in the vote; he called the other side the Mensheviks (the minority). Those names have stuck to the present day. The episode demonstrates Lenin's chutzpah. But much more important, it points to the extremism of his extremism.

Nor was the hard line of Lenin's stance in London just a momentary aberration. We can even pick it out when he was just 19. Young Vladimir was living, with his family, in the lower Volga region, which was in the midst of a terrible drought. As hundreds of thousands of peasants lay dying¸ his sister Anna and other local intellectuals participated in famine relief. Lenin not only did not join them; he disapproved. The famine, he said, would hasten the transition to the new socialist order. Even his ever-worshipful sister Maria was shocked. "He has a different nature from Alexander," she wrote—Alexander being Lenin's older brother, who had been hanged three years earlier for plotting to kill the Tsar. Lenin's sentiments here were the precursor to the view that dominated Soviet history: anything was justified as long as it promoted the Bolshevik heaven on earth.

From those teenage years Lenin developed his vision regarding how that heaven might be reached. According to Karl Marx the progression of history was through three stages: first, feudalism; then, capitalism; and, finally, its overthrow to form the ideal socialist state. For Lenin, however, Russia posed a problem. Being poorer than the capitalist countries to the West, if Russia were to have a revolution, it would miss the middle stage. Lenin had a remedy: to

reach the capitalist state, Russia should be force-fed industrialized, like a goose brought up to yield foie gras. There needed to be a dictatorship willing to take any measures to maintain its power and develop industry. This story, as we shall see, was the Lenin legacy to his homeland. In early 1917 Lenin, who was in Geneva at the time, decided to return to Russia. Still at war, the Germans transported him with a pride of his fellow revolutionaries in a sealed armored train across Germany; from there they took a ferry across the Baltic, and thence traveled onward, to Helsinki, and then south, to St. Petersburg's Finland Station. Lenin arrived dramatically on April 3, 1917 (New Calendar), a huge crowd awaiting him.

That crowd reflected the Bolsheviks' increasing support. Workers in Russia, hit especially hard by the manifold economic problems, were now significantly attracted to the Bolsheviks. Their newspaper Pravda had some 80,000 subscribers. In St. Petersburg Lenin and his comrades made connections with workers and, especially, with sympathizers in the armed forces, also rapidly increasing in number. The Bolsheviks even cooperated a bit with the Provisional Government, for example, by arranging strikes to interfere with Kornilov at the time of his attempted putsch. And they worked on Pravda. But, for the most part, they kept under cover, biding their time. And then the Bolsheviks struck. In the early morning of October 24 (Old Calendar), it appeared that the Provisional Government was preparing to restore some modicum of control. It closed the bridges. An emergency meeting of the Petrograd Soviet was called. Lenin spoke; he would end the war with Germany; and allow the peasants to divide amongst themselves the remaining land holdings of any size. But those appeals to popularity were an amuse bouche relative to his main message: when he also declared the revolution an accomplished fact. He followed up that night with a statement: "State power has passed [to the] Petrograd Soviet [and the Bolshevik-packed] Military-Revolutionary Committee." The announcement was premature at the time of that initial speech, but not by the time of the release of his statement, at 10 the next morning. In the course of the night, Bolshevik-sympathizing military units had moved into town. Unopposed, they took over the key government buildings; and especially the meeting-place of the Provisional Government. From these beginnings, in the vacuum of power left in the abdication of the Tsar, and during the brief regime of the Duma, the Bolsheviks began their takeover: of all of Russia.

The Bolsheviks, with Lenin as their leader brought to the table, a new graft on the story regarding what it meant to be Russian. That story described how Russia would be run economically, civilly, and militarily. It was Dawn of A New Glorious Socialist Age.

Focusing Attention

Now note how the narrative focuses our attention on particular events, linked through particular causal relations. This role of narratives has important implications for our thoughts and actions, since it alerts us to future dangers and opportunities. In particular, the narrative is telling us to be particularly wary of extremists in times when there is a power vacuum.

But the account tells us something even more important than this, namely, to be wary of the narratives of these extremists, since their narratives give them their potential power. Our account is actually a narrative within a narrative: The story about the Bolshevik seizure of power contains the story that Lenin told about Russia's destiny. It was Lenin's story that enabled him to mobilize the Russian workers. In accepting Lenin's story, their attention became focused on setting up a dictatorship of the proletariat that would lead to an ideal world where each would give according to his ability and take according to his need. Centrally planned industrialization would have been impossible to initiate without a substantial body of people seeking to make Lenin's story a reality. Russian workers could have pursued many other objectives; it was Lenin's narrative that induced them to focus their attention on forcible achievement of power followed by a rigid industrialization drive.

Our narrative of Russian history enables us to focus on this particular aspect of Russian history. On April 3, 1917, it was far from clear that Lenin's arrival at St. Petersburg's Finland Station was particularly newsworthy. Only subsequent events made it so. With hindsight, we can focus our attention on developments that turned out to be consequential for what would become the Soviet state and the terrible sacrifices it exacted from its citizens. With foresight, this was an impossible task.

Attention is commonly described as a sustained focusing of our cognitive resources on particular environmental stimuli, combined with a sustained neglect of extraneous stimuli. The neglect is as important as the focusing, for without the neglect of extraneous stimuli, we would be unable to process the relevant information efficiently. Mainstream economic analysis, by assuming that agents optimize their objective functions over their entire regions of feasible opportunities, ignores this phenomenon of neglect. It is a major oversight, since all conscious decisions (including the economic ones) are made only with respect to the possibilities that are in our attentional field.[f]

Despite extensive analysis in psychology and neuroscience, there is still little consensus on how attention functions in our thinking and decision making processes. Kahneman (1973), for example, has proposed that we have a fixed amount of attentional resources, which can be divided

[f] Behavioral economics has implicitly touched on perceptual neglect in the context of framing and mental accounting, but there has been little research thus far on the mechanisms and determinants of attention.

among various objects of attention. Others (e.g. Navon and Gopher, 1979) however have observed that it is more difficult to divide attention among tasks which share the same modality (such as listening to a radio news program and a conversation at the same time, since these both share the auditory modality). Some have noted a tradeoff between the size of the perceptual field and the efficiency of cognitive processing: the wider the focus, the longer the requisite processing time (e.g. Eriksen and St James, 1986, Castiello and Umilta, 1990). Yet others have emphasized the role of emotions, cognitive processing and automatization of tasks in the generation and allocation of attentional resources. Attention is also linked to working memory, where information is stored for future manipulation. The information is selected for working memory partly through top-down sensitivity control (by higher cognitive processes) and partly by bottom-up saliency filters (automatic processes shaped by biological adaptation), so that attention can be distinguished through its endogenous and exogenous sources. (See, for example, Knudsen (2007) and Pattyn et al. (2008).)

Such insights have far-reaching implications for economic analysis. Since, as noted, our conscious decisions are made only with respect to the objects of choice we are attending to, our decisions are shaped as much by our attentional field (generally a small domain within the full set of feasible possibilities) as by the choices we make once the choice set has been determined. Those things that are in the center of our attentional field have greater importance for our decisions than those things at the periphery. Kahneman calls this the "focusing illusion" - "Nothing in life is as important as you think it is when you're thinking about it" (Kahneman (2011, p. 402) and Wilson et al (2000) call it "focalism”). It is the reason why crippling accidents don't leave paraplegics in a permanently bad mood: unless they suffer from chronic pain or severe depression, their attention reverts to what occupied them before their accidents. When people adapt to new situations, they do so by attending less to their previous concerns.

Our attentional field is not the outcome of a utility maximization process, since we have only limited cognitive resources to compare the outcomes of decision making based on alternative attentional fields. Instead, our attention is driven by other processes, largely unexplored in economic analysis thus far. For example, our attentional field affects the content of our working memory, which in turn influences the selection of new information for our attentional field (see, for example, Pattyn et al. (2008)). This reflexive loop makes our attentional field path-dependent. Our attention also depends on the external stimuli we face. For example, we are sensitive to unusual stimuli and those to which we have an instinctive or learned response.

In addition and importantly, our attention is affected by our emotions and motivations. The evolutionary reasons for this are apparent. Since our conscious behavior is driven by our

motivations, it is clearly useful for our attentional resources to be focused on what we are doing. Furthermore, emotions (linked to our motivations, but distinct from them) are a quick channel whereby we gain insights from our environment: a growling dog running our way will evoke fear and thereby focus our attention on options to flee. Emotions are also a quick way to gain insights from others: through emotional contagion, for example, we are quickly infected by the fear of our companions in response to a common threat, to which our attention becomes directed. Furthermore, in the many situations in which economic actions become self-fulfilling prophecies, emotional contagion - together with the resulting harmonization of attentional focus - offers the opportunity of benefiting quickly from such prophecies.

These determinants of attention clearly play an important role in economic decision making, but have received little attention in mainstream economics. Mainstream analysis also ignores the role of attention in making sense of our environment. We understand our environment not just by fitting the available data to the given frame (our attentional field), but also by adjusting the frame. Our decisions arise from the interplay between data-fitting and frame-fitting. (Mainstream economics focuses on the former.) This two-way fitting process is in the spirit of the sense-making theory of Klein (2006b) and the Recognition-Metacognition model (Cohen et al. 1996).

The roles that attention play in economic decision making alerts us to the importance of narratives, since narratives are - as we have seen - an effective device for focusing attention.

FAST FORWARD

George Akerlof remembers seeing the consequences of Lenin's vision at the very end of the Soviet period. It was 1990, the time of Gorbachev's Perestroika; and he was invited to Moscow. He remembers going to GUM, Moscow's famous leading department store. He should have been prepared for what he saw, since he had read about it many times, and seen it in pictures, but in the flesh it was even more impressive. The store was full of shelves swept bare, spotlessly clean. In addition, some shelves were full to the brim. These full shelves contained items no one would want to buy, such as the colorful pins he purchased for his nine-year-old son, back home in America. Some twenty years later, he discovered them in a closet, unused, but dangerously rusty. There was an elementary reason for this combination of empty and full shelves. For Soviet Planners, the price of an item was an after-thought. If the price was set too low, demand would exceed supply, and the shelves would be empty. If the price was set too high, the supply would

exceed demand; and the shelves would, most of the time, be full. This is the clearest evidence he had ever seen of the fundamental economic principle that when price is too low, demand will exceed supply.

Luckily, he was guided in his visit by a leading young American expert on the Soviet economy, Richard Ericson, who explained easily the essence of Soviet planning. Almost all production and exchange—in agriculture, retailing, and industry—was state controlled. Production and delivery were determined by The Plan. Whatever its complexities, the essence of Soviet planning was remarkably simple. The Plan was a long list of commands to deliver. The prices were an after-thought, set independently, at what the goods were "worth" (See Ericson, 1991).

This system, which owed itself to the Marxist conception of a Plan worked remarkably badly. In the first instance, those empty shelves took a terrible toll on the consumer. It meant that every housewife was in constant desperation to get what she needed. As soon as a desired item was stocked, word of mouth would be passed that meat, for example, was available. The line would lengthen until the cost of waiting made it only worthwhile, at the margin, to get the good.

But that huge inefficiency was just the beginning of why the system worked so very badly, because the command economy did not just determine what went to the retail stores. It also described the exchange of goods among producers. Thus for example, the Plan would command the Smolensk Revolutionary Glass Works to deliver to Lada People's Automobile Works 50,000 square feet of glass on January 17, 1985; the characteristics of the glass; and the price Lada would pay. Neither Lada nor Smolensk was free to decline. But then, if the glass did not fit, how could Lada fulfill its prescribed Plan delivery of 1,734 cars dictated by the Plan to Tbilisi on, say, June 17?[g] *A story going around Moscow in 1990 indicates the systematic mismatch between quality-desired/quality-delivered, as it also tells us how the Soviets managed to muddle through. In the late 1980's, a Portuguese company, optimistic about Russian Glasnost (openness), ordered some carloads of glass. But when the glass arrived, it was broken. The Russian administrators who had taken the order were surprised: no one had ever complained before. Previous recipients of glass had expected it to be broken; they had all wanted the beautiful birch in the packing.*

Prices might not be used as incentives, but the State had auxiliary methods of obtaining

[g]This example is in line with Ericson's example (1991, p. 18) of a ball-bearing factory. He gives more detail, regarding how the ball-bearing factory would muddle through, meeting its own goals as best it could, to the inconvenience of those down the line.

cooperation. More than 20 central committees subsidiary to the Plan, mediated so that the right type and quality of "glass" would be delivered to the right destination. But one agency, not on that official list, juiced up the incentives. This was the Secret Police. For a plan that was not working, there was at hand a simple explanation. The Plan was sacrosanct; it could not be wrong. Instead, as explanation, the Secret Police would find sabotage by counterrevolutionary bourgeois elements. Even the highest government official was not immune from the Secret Police. In 1946 Lavrenti Beria was demoted from Commissar of the Secret Police (the NKVD) because Stalin feared him; but since Beria was a model of efficiency he was transferred, to head the Russian Atomic Bomb Project. The successful Soviet nuclear test of 1949 saved at least one life: Beria's, at least for the moment. Through the Secret Police, he was later dispatched by the triumvirate who took over after Stalin, who, likewise, also feared him.

Predicting Events

Our story illustrates how narratives help us predict events. By bringing particular causal relations to our attention, they enable us to infer how one set of events leads to another. Predictions may be understood as causal implications, including but not necessarily restricted to implications for future events. (For example, a theory of evolution or cosmology may successfully predict events that occurred in the past.)

Broadly speaking, there are two approaches to causality underlying prediction. The first is the "classical" approach, according to which causes are determinate entities that exist independently of our minds and bodies, providing an objectively ascertainable causal link to the associated effects. This approach is recognized to be fraught with intractable difficulties, first identified by David Hume, who noted that the mere occurrence of an event never deductively implies that another event will occur, but that induction is never sufficient to justify the assumption that past associations of events will continue in the future. Attempting to justify the assumption by appeals to past experience are, in Hume's words, like "going in a circle, and taking that for granted, which is the very point in question" (Hume, 1748, p. 23).

The second approach to causality is the one that Hume proposed in response to his problem of induction, namely, that causation is based on a primitive psychological disposition that he called "custom", whereby we make empirical predictions without rational justification. "Without the influence of custom, we should be entirely ignorant of every matter of fact, beyond what is immediately present to the memory and senses" (Hume, 1748, p. 29). Research in psychology and neuroscience has shed light on how we make sense of our world through our perceptual interaction with and bodily manipulation of our environment. We organize our perceptions into unified wholes,

through which our experience takes on a discernible order. We interact with our environment through the exertion of force, which we direct on other objects or they direct on us. This is an origin of our sense of causality, linking the sources and targets of force.

While statistical models follow the first approach, they do not account for our intuitive understanding of the causal forces underlying the predictions on which most of our interactions with our environment are based. Empirical observations, falsifiable hypotheses and repeatable experiments may help shape our inductive inferences, but they can neither prove the existence of causal relations nor wholly explain what makes these inferences psychologically compelling. The underlying problem is that our hypotheses are frequently "not identified," in the sense that the available evidence is insufficient to determine uniquely what beliefs are to be held on it. Furthermore, many of our decisions are made under circumstances that cannot be construed as replicable experiments. Then inductive inferences are not appropriate.

But since we must continually make predictions in order to interact with our environment in ways that are meaningful to us, it is important to investigate how we become convinced of our predictions. The degree of conviction depends on more than statistical properties. Determinants of conviction (for an excellent overview, see Tuckett (2015)) include (a) coverage of the narrative (the degree to which it accounts for the available evidence); (b) the emotions that the narrative evokes (somatic markers); (c) the degree to which a narrative reduces anxiety or promotes positive feelings; (d) the plausibility and consistency of the narrative; (e) the perceived completeness of the narrative (in terms of perceived access to information, (Priester et al, 2007); (f) the speed of narrative processing and retrieval (e.g. Tversky and Kahneman, 1973); (g) the degree to which the narrative is supported by other explanations of a phenomenon and attitude consistent beliefs (Wood, 1982); (h) the ease with which narrative patterns are recognized (as in the recognition heuristic of Goldstein and Gigerenzer (1996; 2002)); (i) the novelty of the narrative (Burnstein and Vinkour, 1975); (j) the degree of trust in others who profess to believe a narrative (Barballet, 2011); (k) the degree to which the information underlying the narrative is perceived to have been collected in a thoughtful and thorough manner (as in the thoughtfulness heuristic of Barden and Petty (2008)); and (l) the degree to which the narrative is in accord with existing social norms and conventions (e.g. Tormala et al, 2007).

Narratives have an important role to play in generating conviction in our predictions. According to Tuckett (2013), "conviction narratives" are narratives that generate sufficient conviction for their underlying predictions to provide the psychological justification for action. Such justification is required in contexts of radical uncertainty, where one action cannot be

objectively demonstrated to be preferable to others. Conviction narratives are relevant to our actions; and they generate confidence in the accuracy of their predictions.

The narrative above illustrates the role of a narrative in making predictions and generating confidence in these predictions. In particular, it highlights the elements of central planning which may be expected to lead to excess supplies and demands. These surpluses and deficits are empirical regularities that induce conviction through coverage, plausibility, consistency, completeness and perceived thoughtfulness. The narrative is also easily recognized and retrieved, in accord with the beliefs and conventional wisdoms in market economies.

Mainstream economic analysis gives no role for narratives to play in predicting events, aside from narratives that rationalize ex post the results of economic models. Such narratives are at best convenient ways of recalling and communicating empirical results; they are neither a complement nor a substitute for the underlying statistical analysis. An important reason for the irrelevance of narratives in mainstream economics is that the latter deals almost exclusively with decision making under risk (whereby the probability distributions of all random variables are assumed to be known) rather than under uncertainty (whereby these distributions are unknown).

THE FIRST TURN OF THE RATCHET

An episode from the late 1920's/early 1930's shows the extreme dysfunction of Soviet Planning. After the Revolution, the Bolsheviks initially dealt with their problems pragmatically—with moderate success. They had won the Civil War by 1919; two years later they had negotiated a stalemate truce in a territorial war with Poland. Back at home in the early-to mid-1920's, they grew the economy under the "New Economic Policy." That policy walked on two legs. The first leg included the bureaucracy (largely taken over from the Tsar), and the nationalized industries. The second leg was free-market, including most small-scale business and retailing, and almost all of agriculture. Grain production by 1925-1926 had come back to pre-War levels (Conquest, 1987, p. 70); industrial output also expanded rapidly.

But time was passing, and the Bolsheviks were in a hurry to reach that next stage of history.[h] *The First Five Year Plan accorded with those ambitions. Over its five years, from 1928 to 1933, industry was to grow by 236 percent and labor productivity by 110 percent (Kuromiya, 1988). Agriculture also had a place in the scheme. Much of the peasantry would be transplanted to collective farms: kolkhozes. Just as giant new factories would mechanize the industrial workplace, these giant new farms would mechanize agriculture. Each kolkhoz would be assigned a Tractor Station—where, Carshare-style, the collective would get tractors for plowing and planting*

[h] A successful plan would also fortify the Soviet Union against threat from the anti-Communist West.

according to need. Those tractors would, of course, be the products of the new industrialization. It was a grand vision: Industry would feed tractors to agriculture. Agriculture would feed bread to industry. It was a great leap forward to a new socialist reality.

But the best-laid plans of mice and men do not always work out as planned. Let's consider what ensued in the Ukraine, the bread-basket of the Soviet Union. We have already seen Soviet planning as a long list, with each line of the list taking the form: commodity X to be delivered to entity Y at place W at time T. The First Five Year Plan had a line on that delivery list that was more important than any other. The non-agricultural workforce needed to eat. The plan would not work if the grain to feed them was not collected and delivered from the farms to the cities.

The problems of those deliveries began small, but then escalated. In the spring of 1928, the government underestimated the amount of grain that would be offered by the peasants to the market, still in existence under the New Economic Policy. The government in Moscow decided to seize the estimated 2 million ton shortfall. This was not a huge exaction out of total production of about 75 million tons (Conquest, 1970, p. 70).

But the method of extraction, easily accomplished in physical terms,[i] *was ham-handed. In that spring of 1928 the extraction took the form of village self-taxation (Ibid., p. 90). Votes in the village communes would determine how much the village would "voluntarily" contribute. In each case there was a vote. But that vote could not be described as democratic. First of all, most of the richer peasants, who were also the likely village leaders, were disenfranchised (Ibid., p. 90). Consistent with the Leninist view that the minority might really be the majority, it took only one third of those present to determine the outcome.*

There was a further constraint on how the vote should be decided: the wrong decision by the commune would be "deemed contrary to Soviet Policy." Part of that policy was heavy exaction from the richer peasants: known as the kulaks. Lest anyone misunderstand how participants were meant to vote, the commune meetings were attended by the Communist cadres responsible for collecting the grain. The secret police were also there: to witness who voted how. The threat was obvious: bread or bullets.

These forced exactions easily achieved their immediate goal of ending the 1928 shortfall, but not without implication for the future. Significantly, the cost of planting the crops exceeded what the farmers would receive in payment (Conquest, 1970, p. 92). If a farmer's additional output

[i] In fact there was an over-delivery of .5 million tons. Ibid., p. 90.

was especially liable to confiscation, he had then a negative incentive to plant. It should then be no surprise that when the 1928 harvest came in, the shortfall was not the fairly mild 2 million tons of before; it was much greater.

This was just the first turn of the ratchet. By Soviet Marxist logic, the fault could not be with the plan. And, if not due to the plan, it must be due to sabotage, by class enemies. The prime suspects out there in the villages were the richer peasants: the kulaks. They must be hoarding the grain that was the rightful property of the Soviet Government.

Motivating Action

It is amply clear that the Bolshevik narrative motivated collective actions that would not have been performed without the purposes and justifications that the narrative provided. Specifically, the narrative changed the direction of people's economic decisions, for a given set of economic constraints (such as the input-output structure of the Soviet economy). Under a different narrative, Lenin's New Economic Policy would have continued beyond 1928, with agricultural and small-scale industrial production moving increasingly into private hands. By invoking the Bolshevik narrative, it became possible to motivate millions of people to follow a different course. Although the Soviet secret police obviously played an essential role in coercing industrialization, in the absence of the Soviet narrative there would have been no rationale for coercion and thus no basis for the voluntarily supportive and permissive participation by many Soviet citizens, which was critical at least to get the forced industrialization started.

Mainstream economics permits consideration of altered directions in economic decision making, for given constraints, only through the notion of preference changes and changes of circumstance (supply shocks). Such preference changes and supply shocks are generally considered exogenously given, lying beyond the purview of economic analysis. Our story shows dramatically, however, further reasons why the direction of economic decisions may change, and also may do so suddenly, affecting large numbers of people, in accord with broadly rational principles of reason, with profound implications for the course of economic activities. Viewing such preference changes as exogenous implies that economic analysis ceases to account for the most important economic events in Soviet history. Viewing them as endogenous but gradual also fails to account for these events. In short, the account of Soviet industrialization in the late 1920s illustrates the need to recognize the existence of multiple motivations, each associated with a different direction for economic decision making. This insight is elaborated in recent work on motivation-driven economics (see Przyrembel et al, 2015), whose basic insight is that all behavior is motivated and that humans have access to discrete, multiple motivation systems.

In particular, all behavior is the product of forces in an organism to initiate, energize and direct its behavior. Simply knowing the person's goals and constraints is not sufficient to determine the person's behavior. A depressed person, for example, may have goals that can be satisfied, but no motivation to satisfy them. Knowing a person's needs is also not sufficient to produce behavior. An anorexic person may need food, but lack the motivation to eat it. In addition to goals and needs, we require a drive that stimulates, controls and sustains a particular behavior pattern. A motive influences the direction, intensity and persistence of a behavior pattern. Each motive is associated with a distinct objective. The motive is, in effect, the drive that propels the organism towards achievement of an ultimate goal.

The multiple, discrete motivation systems to which we have access are biological systems that activate our emotions, modulate our perceptions, and stimulate our motor responses. Przyrembel et al (2015) identify seven motivation systems that are particularly significant for economic decision making: Resource-Seeking, Care, Affiliation, Status-Seeking, Achievement, Threat Avoidance and Threat Approach. These motivation systems are associated with different behavioral tendencies that, respectively, can be denoted as self-interested, prosocial, conforming, competitive, excelling, defensive and aggressive behaviors, each of which is associated with a distinct objective. The activation of different motivation systems is the outcome of the interplay between the person's characteristics (e.g. transient conditions of the internal environment, such as hormone and blood sugar levels, and persistent conditions such as personality), the person's external environment and her appraisal of this environment.

Narratives influence a person's appraisal of her environment, e.g. a shortfall in agricultural output available for industrial workers was viewed as evidence of sabotage by the kulaks. Narratives also affect a person's social environment, by coordinating the actions of various population groups in pursuit of a common goal. Thereby narratives lead to the activation of distinct motivation systems, aimed at distinct objectives.

DEATH BY HUNGER

The next escalation was to expropriate the kulaks. That began with such actions as exorbitant fines on those deemed short in their deliveries. The size of the fines was only the first reason why they drove the offenders into bankruptcy.[j] *Those arbitrary commune meetings, with the Communist cadres and the secret police insisting on self-enforced taxation, had not just determined*

[j] Kulaks, with 5 times the earnings of poorer peasants were assessed 30 times the taxes. The kulaks were taxed at 30 to 40 percent of production.

how much the village would pay, but also who would pay it within the village; no procedure guaranteed any fair relation between the grain a family grew and its exaction. And so the fines were typically back-breaking (Conquest, 1987, p. 101).

But they were just the beginning of the dekulakization. When the harvest of 1929 failed, as would have been suspected, yet more forceful measures had to be taken against the saboteurs: the grain-hoarding kulaks. In January 1929 The Party resolved that 1,065,000 "kulak" families, with about 5,000,000 persons would be divided into three groups (Ibid., p. 121). Group I (about 100,000 families) would be shot; Group II (about 150,000) would be sent to remote areas such as Siberia; and Group III, a bit more mercifully, deported to marginal land in their own district (Ibid., p. 120). This policy made no sense from any point of view: even by the standards of Marxist-Leninist doctrine. The kulaks were presumed to be rich. But after the land reforms of the Tsar, and the subsequent redistribution of the Revolution, a peasant would distinguish himself merely by the ownership of a horse, or perhaps of one or two cows. He might be designated a "kulak" for hiring additional labor for a short time to gather in the harvest. Or he might just be denounced by those who controlled the commune meeting, in need of a scapegoat, or happy to settle an ancient score. But, even wholly discounting these inconvenient truths, this policy still made no sense. The richer peasants may have only owned the extra horse or cow, but still they did produce more than their share of the grain; 3 to 5 percent produced some 20 percent of the grain (Ibid., p. 75). Dekulak the countryside and the collection of that grain for the plan would be far more difficult in subsequent harvests. And so it proved.

Exactly the same techniques for getting the villagers to self-tax, to identify who would self-tax, to get them to identify those who needed to be dekulaked, were used in getting them also to vote to collectivize. The local Bolsheviks cadres would be present at the meetings. The votes were not secret. Those who voted the wrong way would be shot, or sent off cattle-style to the prison camps. In remarkably short order, with remarkable efficiency we might say, by the 1931 planting season most of the Ukraine (and most of the rest of the Soviet Union) was collectivized. And now disaster occurred: in two stages. The first stage was the first harvest. The disorder involved in collectivization naturally reduced output. Any family that has recently moved will understand why. But there was a more immediate cause. Those moving into the collectives had little (or no) reason to take their property with them. If they had a horse, it would be better to sell it, for what it would fetch. If that was not possible, it would make one last good

meal before a bleak future. There was further reason to get rid of that horse, or that cow, before the move. It was bad enough to be a kulak before collectivization. Once collectivization had occurred, that horse, or that cow, would especially stick out. Furthermore, in the Plan's brave new world, horses would not be necessary. The fields would be gloriously plowed with the new tractors from the tractor-share stations.

But the reality of the tractor stations was different from the dream. Often they were miles away. More than that, the promised tractors were not likely to be working. The planners had not adequately foreseen the need for repair. That repair was especially needed since the tractors themselves were the result of the same non-working plan that produced the non-working farms. But whatever the role of no-horses/no-tractors, the disruption of the collectivization itself—fast and forced as it was—would have been sufficient to dramatically reduce production. It was inevitable that the harvest of 1931 was extremely bad.

In a normal society such a small harvest would result in smaller exaction from the peasants. That's what granaries are for. It's also when governments give up foreign exchange (or, nowadays, go to the World Bank or to the IMF) to get it from Kansas. But the plan was unbending: just as the Russian leader called himself "Steel." Since the plan could not be wrong, once again it
must be those kulaks: with their hoarding and sabotage transmogrified onto the collective farms. The grain deliveries were sacrosanct. So the Communist cadres went out in search. Their bayonets would even poke into haystacks, even into niches of the peasants' hovels, seeking even the smallest stashes of grain. A collective that had not met its levy was guilty of defrauding the Soviet government. Any food that was found was confiscated.

If farmers are sufficiently hungry they eat the seed for the next season. The 1931 harvest was bad, but the 1932 harvest would be far, far worse. How would the people make it through the coming year? A very significant fraction did not. We do not know how many died. Whole villages were wiped out, where, gruesomely, everyone starved. For many, the corpses of those who had gone before provided their last supper. There is a vast range of estimates regarding how many died in the Ukraine, with the mid-range of about 5,000,000 out of a rural population of 25,000,000. But even then the collection of grain at gunpoint continued. In this regard the plan had no flexibility. In Ukraine the famine is called the Holodomor—the death by hunger.

Social assignments and identities

It is striking how the Soviet narrative assigned different social roles to people on the basis of characteristics that became significant only in the context of that narrative: party members versus

regular citizens, kulaks versus poorer peasants, peasants versus industrial workers. These social roles divide people into distinct social groups. Each group has its own social norms (embodying the group's expectations regarding appropriate attitudes and behavior patterns) and ideals (describing exemplary attitudes and behaviors). Living up to these social norms and ideals often comes with extrinsic rewards and violating these norms elicits extrinsic punishments. The values of the group are commonly internalized by its members, supplementing or replacing the external reinforcements and sanctions. Members of a group feel the need to affiliate and conform. Social groups are also characterized by their degree of tolerance for deviations from their norms and ideals.

Social groups generate their own social identities, each of which may be described in terms of distinctive characteristics shared by members of a group. Identities play an important role in guiding behavior, since people who recognize themselves as belonging to the same social group have an incentive to cooperate in pursuit of common goals. The pressure to affiliate and conform may take the form of normative influence (the desire to receive acceptance and approval from other group members) and informational influence (in ambiguous situations). Furthermore, recognition of differences in group affiliation leads to less cooperation and sometimes to conflict.

Bruner (1986, 1990) argues that we understand the world in two ways: the "paradigmatic mode" of thought (in which we explain our experience in terms of empirical observation and rigorous reasoning) and the "narrative mode" (in which we understand events in terms of people's motives and intentions). Narratives are a primary way whereby we make sense of our social world. This process begins early in life: children commonly use narratives to explore their relations to others and to investigate other's perspectives. Thereby narratives become crucial to the shaping of identities. "Our sensitivity to narrative provides the major link between our own sense of self and our sense of others in the social world around us" (Bruner, 1986). Narratives are also an important instrument for personal integration, since we generally make sense of our lives in terms of a single, unfolding story. It is common for people to revise their narrative accounts of themselves in terms of their current experience. Our sense of identity, as conveyed through narrative, is context-dependent (shaped by our external environment), interpersonal (described in terms of our interrelations with others), intersubjective (generally in need of corroboration by others in our social groups) and emergent (in response to largely unforeseen circumstances).

Mainstream economics ignores the role of narratives in generating and maintaining identities since it assumes that preferences are located exclusively in the individual; the influence of social groups on individual preferences is ignored. This gap is filled by identity economics (e.g., G. Akerlof and Kranton, 2000, 2010), which explores how people’s decisions are influenced by the norms and ideals of their social groups.

The usual lesson economists take from the Soviet experience concerns the inefficiencies of State Planning. We agree. But we also take away another, deeper lesson, concerning the importance of stories. Lenin's great bequeathal to the Soviet State was his story about the road ahead. The Holodomor did not just happen because of the Plan; it also happened because the cadres accepted that story. Thus, in the villages the cadres were willing to encamp, or to shoot, the innocent. They did so because they were forced to do so; but they were also willing to carry it through because they believed in the promise of socialist bliss; and, furthermore, following Lenin, they believed that moderation in pursuit of that goal was no virtue, as extremism was no vice.

That lesson concerns the Soviet Union. But the deeper, more general lesson concerns a warning the Soviet experience gives to us, who have the good fortune of living in saner times and in saner places. We too live by our stories, and those stories are not always benign. Our social and economic system gives us, thankfully, much less opportunity for going wrong. But insofar as it does, we too should always be looking over our shoulders to check whether the stories we are telling ourselves, which are responsible for our decisions, give us what we really want.

Power Relationships and Social Norms

The social roles associated with distinctive identities bring people into predefined and predictable social relations with one another, such as parent-child, teacher-student and Party official-regular comrade. These social relations imply distinctive power relationships.

Power, in terms of the potential to exert influence, can be generated in various ways: perceived control over others' rewards and punishments, social identification, expertise (being perceived as knowledgeable by others), and legitimacy (being perceived as having the right to influence). Whereas some power arises from the actual ability to control resources, it is common for power to depend on perceptions by others. Narratives are the organizing principles shaping such perceptions. For example, perceptions of competence and legitimacy often depend on socially conferred status characteristics that might not be relevant to the domain wherein power is exercised.

Power relationships may be established and maintained through the pressures of social conformity (e.g. Asch, 1955), obedience to authority (e.g. Milgram, 1964) and compliance (e.g. Freedman and Fraser, 1966). These relationships are often driven by a variety of motives, such as Affiliation, Status-Seeking, Threat Avoidance and Threat Approach. Whereas these relationships are often essential for maintaining people's cooperation in social groups, they may also lead to

destructive outcomes, as our account of Soviet history illustrates. Starting with the Milgram experiments, there has been much research on why people tend to be obedient to authority, even when it manifestly causes significant harm. Narratives conferring legitimacy and expertise to particular social groups or ones that induce people to identify with authority play an important role in this regard.

Since narratives have a tree-like structure, they develop branches. This makes people highly manipulable, as much of the game of life is to graft branches favorable to us onto other people's narrative trees, as they also seek to graft branches onto our narratives that are favorable to them. Power relationships often arise from these grafting activities. Mainstream economics ignores this role of narratives, since it does not consider the power relations derived from the interplay among social groups.

Last, but far from least, narratives serve another social function. They convey social norms and help explain why norms should be obeyed and under what circumstances violators of norms are to be punished (see, for example, R. Akerlof, 2015). The *Bible*, for example, is made up of many narratives, and serves all of these functions.

The function of social norms is to induce people to cooperate in order to achieve a common goal. They are meant to regulate social relationships. In our evolutionary history, such norms often enhanced the survival prospects of the norm followers in multifarious ways.However, as the narrative above shows, social norms can also lead to detrimental social outcomes. Mainstream economic theory ignores social relationships and thus has no place for social norms. Behavioral economics, when concerned with norms, generally makes room for them by including them in reasonably stable utility functions. While Mancur Olson (1965) asserted that rational, self-interested individuals would not contribute to common goods, Elinor Ostrom (2014 and elsewhere) showed how social norms may evolve, permitting people to overcome such collective action problems. Others have investigated how social norms enable people to cooperate in the absence of formal property right systems and centralized allocation mechanisms, in particular through promoting the establishment of reputations and sanctions, whose effectiveness tends to be strengthened through parochialism (e.g. Bowles and Gintis, 1998).[k]

The exposition above goes further by illustrating how narratives provide a social context within which social norms become explicable, as well as desirable as goals of individual behavior. Narratives not only rationalize norms in terms of simple scripts whereby people can easily recall their meaningfulness, but also specify the circumstances under which they are to be applied.

[k] The role of sanctions in norm enforcement has received much attention recently (e.g. Fehr and Fischbacher, 2004).

Narratives also provide reasons for why norm-enforcement should have normative force and under what circumstances. In short, narratives do not just specify norms of behavior, but also provide application principles that are embedded in particular social relationships.[1]

In the Soviet narrative, the Communist story conveyed strict social norms, concerning not only material accumulation, but also dress, manners, political rituals, forms of personal address highlighting both an egalitarian ideal and authority relationships within Soviet society, and much more. By articulating the goal of socialist bliss, the narrative explained why Soviet citizens were required to follow these norms and why they needed to spy on violators and bring them to Soviet justice. Without this social role of the Soviet narrative, it would have been impossible for the Bolsheviks to gain power and extremely unlikely for them to have maintained it later on.

CONCLUDING REMARKS

The various roles of narratives discussed above have important implications for economic decisions. In order to take account of these roles, mainstream economics needs to be extended in the following respects:

- Narratives enable people to make sense of their environments by providing simple mental models of causal relations that focus their attention on particular variables and lead them to make particular predictions.
- All behavior is motivated in the sense that individuals have access to multiple, discrete motivations, each associated with a different objective. Narratives play a role in activating motivations.
- Different social contexts also activate different motives. Narratives assign social roles and build identities.
- Thereby narratives help establish and maintain power relationships.

This framework of thought has the following implications, conflicting with traditional economic analysis: An individual's objectives are not unique, since the individual can draw on multiple motivations, associated with different objectives. An individual's objectives need not be internally coherent across motives. An individual's objectives are not context-independent, since contexts play

[1] On this account, people may follow conflicting norms, driven by conflicting narratives, but applied to different social circumstances. (For an analogous argument with regard to moral values, see Fiske and Rai, 2011.)

a role in activating motivations. An individual's objectives are not exclusively self-interested, since the individual is concerned about her relationships to others, shaped by her identities. An individual's objectives need not be temporally stable, since motives may change quickly through time. An individual's environment is generally not determinate, since the individual generally has access to multiple interpretations of her environment, with no unambiguous objective criteria for defining the environment. An individual's environment is generally not objectively observable, since the individual is active in construction of this environment. Individuals are not means-end rational since they use only their attended-to means to achieve their attended-to ends.

These implications open up important roles for narratives to play in economic decision making. In particular, since people's environments are not determinate and objectively observable, narratives can play a role in defining these environments. Furthermore, narratives influence the objectives of people's activities, for any given appraisal of the environments.

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