

BRINGING PEOPLE BACK IN Actors, Institutions and Cognition

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The dynamic nature of history implies that the centrality of beliefs – how humans form their beliefs and how they learn– is fundamental to a new social science. This in turn leads us to two inquiries: first, how the mind and brain work to understand their environment; second, how humans learn from one another, for example through culture. (North 2008, 1005)

Introduction

Institutions are at the core of many political and social science theories today. For some, institutions provide the strategic incentives and constraints in which actors maximize their individual utilities. For others, institutions are seen as patterns of behavior that grow out of and regularize social interaction. In either case, institutions are the ‘rules’ that structure social and political behavior. Institutions are important because they structure human behavior.

But we also know that institutions do not *determine* behavior or define outcomes. We know, for example, that you cannot simply plant a set of institutions on a population (whether mid-20th century Japan or early 21st century Afghanistan) to easily predict how these institutions will be interpreted, used and/or manipulated. This is not only because humans create and can change institutions, but also because human beings come to the institutions they inhabit with prior expectations and with cognitive biases and predispositions that affect how they will work within these institutions and adapt them to their local circumstances (Steinmo and Thelen 1992).

Actors and Institutions

Many scholars have argued in recent years that institutionalists must revise their conception of institutions from one that viewed institutions as independent, self-reinforcing and essentially stable constraints on behavior to one that views institutions as sets of rules embedded within the

broader institutional milieu of a polity (Blyth 2002; Greif and Laitin 2004; Lewis and Steinmo 2012; Lieberman 2002; Mahoney and Thelen 2009). Instead, these scholars have argued that we need to explore the ‘interaction’ between institutional structures and agents. Indeed, the interaction between individuals’ perceptions and preferences and institutions are at the core of concepts such as “positive and negative feedback” (Pierson 2000), “friction” (Lieberman 2002), “layering and conversion” (Thelen 2004), and “informal adaptive institutions” (Tsai 2006), that are becoming commonly understood mechanisms of institutional change (see also Farrell 2009). This more interactive and dynamic understanding of institutions is nicely expressed by Wolfgang Streeck and Kathleen Thelen:

Conceived as systems of social interaction under formalized normative control, institutions cease to appear as a rigid hardware of social life mechanistically relegating actors and action to narrowly circumscribed residual spaces for spontaneous voluntarism and rational calculation. Instead a grounded, ‘realistic’ concept of social institutions [...] emphasizes their being continuously created and recreated by a great number of actors with divergent interests varying normative commitments, different powers and limited cognition. (Streeck and Thelen 2005, 16)

Even though by now most institutionalists acknowledge the crucial role of ‘actors’ or ‘agents’, they leave us with a black box concerning the psychological processes that intercede between individuals and institutions. We find this surprising.

Perhaps this lacuna derives from what we think of as the misplaced debate between Historical Institutionalists (HI) and Rational Choice Institutionalists (RCI) over whether it is important to examine the ‘micro-foundations’ of collective action. We argue here that institutionalists should indeed examine the ‘micro-foundations’ of human behavior. But as is well known by now, a huge body of research on real human decision-making in psychology – and increasingly also in behavioral economics – draws some of the assumptions of traditional RCI theory into doubt. We suggest that a more nuanced and empirically based analysis of human decision-making can help advance institutionalist theories from both camps. We argue below that bringing in some of these basic insights about human cognition into institutionalist theorizing can yield insights into both, *why* institutions are important, and *how* people can sometimes change them.

The following essay attempts to contribute to our understanding of these longstanding issues in the institutionalist literature by taking *real* people's thinking and acting seriously. It proceeds in three major sections: In the first section we ask the rather obvious – yet rarely explicitly considered – question "*Why* do people follow rules?" As we noted above, the most widely accepted definition of institutions is simply 'rules'. Yet we know that people do not always follow the rules that surround them and, indeed, can interpret or manipulate any given rule in many different ways. We discuss the multiple *motivations* for rule following behavior discovered in cognitive science research and social psychology. We specifically focus on two major *motivations*: a) humans' desire and need for social affiliation, and b) our cognitive need for accuracy and consistency.

In the second section, we more explicitly examine the *mechanisms* invoked in rule following behavior. In other words, we ask *how* people follow rules. We draw the reader's attention to the widely known distinction between high and low-effort mechanisms. Noting once again that rule following behavior is scarcely perfect, we explore the implications of high effort and low effort cognitive processes for understanding typical rule following behavior.

Finally, we explore the implications of these motivations and mechanisms for rule following behavior in an attempt to build a better understanding of institutional stability, as well as institutional change. For it is clear that humans not only follow rules, they also invent them, reproduce them, and sometimes change them. Here we hope to go beyond the current institutionalist literature that focuses on different types of institutional change, and instead ask how and why institutions change and why they persist in the ways that they do, as a consequence of human cognition and behavior.

Explaining rule compliance

While there are many reasons for rule following behavior, we argue that we must understand both humans' *motivations* and our *cognitive mechanisms* to fully comprehend the relationship between institutions and agency. Motivations and mechanisms are certainly related to one another, but for our purposes here we separate them analytically: Human cognition is enormously complex and it

is difficult, to say the least, to summarize or simplify the multiple (sometimes conflicting) processes that go into real world decisions and behavior.

Certainly, as economist and political scientists have long argued, self-interested benefit-maximization is a profoundly important motive for much human action. In this essay we focus on two additional basic human *motivations* that the cognitive science literature has confirmed: a) the need for affiliation (the need to belong), and b) the need for accuracy (to ‘make sense’ of what we observe)¹. We do not claim that these motivations are exclusive or fully summarize the complexity of human decision-making, but we do believe that these additional motivations are particularly significant for understanding the relationship between actors and institutions.

Next, in the following section we focus on what we think are two especially important *mechanisms* in human decision-making. Drawing on the well know ‘dual process’ models of cognition, we show that rule following can be triggered by two different kinds of cognitive mechanisms – by an effortful, conscious analysis of the rules at issue on the one hand, and secondly, by less demanding, not necessarily conscious, ‘low effort’ psychological mechanisms.

It is important to notice the distinction between motivations (first part) and mechanisms (second part). While motivations constitute basic human needs, shaping our preferences and underlying our cognition and behavior, mechanisms can be defined as “frequently occurring and easily recognizable causal patterns that are triggered under generally unknown conditions or with indeterminate consequences” (Elster 2007, 36). Thus we can say that while motivations explain our general preference for rule compliance – or *why* we follow rules, cognitive mechanisms explain *how* we follow rules, or *how* individuals interact with institutions. Elster (ibid) has pointed out that while mechanisms allow to us *explain* individual behavior, they cannot *predict* it, because behavior usually consists of complex chains of mechanisms, which depend on a variety of conditions. To sum up, we assume that *mechanisms link motives to actual behavior* and thus both, motives as well as mechanisms are needed to explain behavior.

¹ These or similar basic motives have been identified by different scholars since the beginnings of the history of social psychology as basic human drives for a review see . For example, Jones and Thibaut 1958 classified these goals as “maximizing beneficial social response” and “gaining cognitive clarity”.

Motives – Why people follow rules

Rational, or strategic, benefit-optimizing strategies are seen by some as the sole, or the principal motives of human behavior. But, as is widely acknowledged, if one defines this motivation as narrow, short-term, self-interest, it falls short of explaining a large part of human behavior, while if one fails to specify the ‘utility’ of actions, the argument becomes empty or tautological. Consequentially, a growing number of social scientists – for example North (cited above) – have attempted to develop more nuanced and complex understandings of our motives when making choices. A substantial body of literature has been devoted to these questions in the social and decision sciences. This clearly demonstrates that while humans certainly desire to optimize their decisions and their benefits, they are more complex, and often less ‘machine like’ than early models required us to assume (Gintis et al. 2006; Kahneman, Slovic, and Tversky 1982). While a variety of different motives might be relevant in humans’ everyday life, in this section we focus on two basic motives, which we believe to be key in explaining rule following behavior in addition to self-interest.

Affiliation – humans as social creatures

Humans are fundamentally social beings. “The motivation to form and sustain at least a minimum amount of social connections is one of the most powerful, universal and influential human drives” (Baumeister 2011, 121). This simple and not very surprising idea is the core of Baumeister & Leary’s (1995) *Need-to-belong Theory* which has triggered a large social psychological research program trying to show the power and extent of this motivation. The idea of a fundamental need for attachment and belonging had, however, been formulated earlier by psychoanalysts like Bowlby (1973, 1982). Belonging was also seen as one of the fundamental human needs in Maslow’s hierarchy (1968). While there are important differences in these research programs, they all concur on the basic point that our emotions, cognition, and behavior are shaped by our need to belong and our self-esteem is dependent on whether we succeed in maintaining meaningful social relationships with others. Accordingly, rejection and social

exclusion have profound effects on individuals, they can trigger aggressive behavior and emotional numbness (Baumeister 2011)².

Our need to belong often triggers *drive to conformity* (Janes and Olson 2000; Mead et al. 2011). Acting in ways of which others will approve is one way to ‘fit in.’ This means that our decisions are sometimes led by the desire to conform to the tastes and beliefs of others (Cialdini and Goldstein 2004; Elster 1993).

Another body of research along these lines is known as *Social Identity Theory*, (Tajfel 1982; Turner 1982). Scholars in this field have argued that in order to explain real human behavior we must understand humans’ relationships and affiliation to different social groups (Reicher, Spears, and Haslam 2010; Turner and Reynolds 2011). The core argument here is that people often think of themselves as group members rather than as autonomous beings. That is, the social context builds a key determinant of self-definition and identity. This group-related self-definition in turn prompts us to behave according the norms of the respective groups³.

Led by their need to belong, individuals establish their identity by defining themselves as parts of groups. Interestingly, we can identify with various groups at different levels of society at the same time (e.g. as a Florentine, as an Italian and as a European), and we can ‘switch’ between these levels. Which group’s norms are followed depends on which group identity is most salient in a given situation.

This insight helps to explain a range of phenomena that prove hard to explain only by looking at a single individual’s interest. In some groups or societies people greet each other by shaking hands while in others they would never do that; in some societies double-parking – even though prohibited by law – is socially accepted while in others it is not. Rules and norms emerge from our social context and are enforced through our social context at the same time. Following the rules and norms of a group helps us to feel part of a group, to establish and maintain meaningful social relations. If I decide to stand on the right side of the escalator that is not only because I

² Indeed, the most effective punishment one can apply in the modern prison is to isolate the individual prisoner and prevent him or her from having contact with other individuals. Some consider this punishment “inhumane.”

³ The starting point for social identity research was set by Tajfel’s ‘minimal group paradigm’, a series of experiments showing that individuals tend to favor their own ‘in-group’ at the detriment of an ‘out-group’ – even if the groups consist of unknown others and membership to groups is randomly assigned.

calculate that this will contribute to the smooth flow of people in the station, but also because I fear social disapproval, probably even overt complaints by others.

In sum, humans like all social creatures, have evolved a basic (probably innate) ‘need to belong.’ If we are to build a more accurate micro-foundation for institutional theory, this insight must be at the core. This is because our need to belong motivates, a) our drive to conform with others’ behavior, and b) because our individual identities are often tied to group. Even before we can ask “what is in my self-interest?” we must first ask “who am I?”

Accuracy & consistency – the mind as a sense-making machine

Perhaps one of the most distinctive features of the human mind is its desire to be accurate. A wide body of cognitive research has shown that humans hold strong motivations to accurately perceive their world. The way the human mind apparently does this is through pattern seeking, pattern recognition, and even pattern creation. Instead of understanding the world around us as a set of random events, human beings have a remarkably advanced capacity and inclination to ‘make sense’ of what we see around us - humans *want* to understand their world as non-random and prefer to see it as following sets of systematic patterns.

Decades ago Walter Lippmann captured the key point here when he argued that, given the complexity of the world around us, and our desire to make sense of it, we humans create “pictures in our heads” (1922). This ‘pseudo-reality’ allows us to function socially and to build institutions when these ‘pictures,’ are shared. As Lippmann suspected, and a huge amount of subsequent research has confirmed, when new information or situations are confronted, our first response is to interpret them and ‘fit’ them into the already established schema or ‘pictures’ in our heads. This is now understood as the powerful tendency towards the “confirmation bias” (Ditto et al. 1998; Kunda 1990; Lord, Ross, and Lepper 1979). As social creatures, moreover, we are also likely to share explanations and be ‘biased’ in similar ways.

Of course, there are situations and experiences where we cannot find an already established pattern into which we can ‘fit’ new information. In these cases we very often invent explanations or we re-interpret the data so that it does fit. Petty and Wegener (1999, 44) state that “in the absence of other competing motives, the correctness motive is presumed to be default goal.” The

idea that we strive for cognitive closure, for accuracy, explanation, and meaning has a long history in social psychology, starting with Gestalt psychology (Bartlett 1932; Heider 1944; Jones and Thibaut 1958; Moskowitz, Skurnik, and Galinsky 1999). Allport (Allport 1954, 170) spoke of an “insatiable hunger for explanations” and a “constant pressure to obtain definite meanings.” (316). More recently, Kahneman (2011) spoke of our mind as a “meaning-making machine”. This in turn demands that we believe we have accurate perceptions and interpretations of the world (Cialdini & Goldstein 2004).

Closely related to our need for finding patterns, and making sense of our environment, is our strong desire for *cognitive consistency*. People have “a strong need to enhance their self-concepts by behaving consistently with their actions, statements, commitments, beliefs, and self-ascribed traits” (Cialdini and Goldstein 2004, 602; Cialdini and Trost 1998). The idea of a motivation to maintain a positive self-evaluation by acting and thinking consistently was formulated in the mid-20th century by social psychologists in their cognitive dissonance theory (Abelson and Bernstein 1963; Festinger 1957) – by now one of the best-established theories in social psychology .

More recently, the evolutionary psychologist and anthropologist, Robin Dunbar (2009), has argued that *Homo sapiens'* linguistic capacities coevolved with our cognitive capacities to make sense of and rationalize the world around us. It is, he suggests, these two features of human physiology and psychology that have allowed us to dominate the planet. As our species evolved the capacity to see and build patterns we also evolved the capacity to communicate. Indeed language itself is a system of symbols and patterns – a system of rules. As our species coevolved more and more sophisticated linguistic and cognitive capacities we were able to create and follow more complex social rules (see also Richerson and Boyd 2008).

As these rules became more sophisticated, *Homo sapiens* were able to build larger, more complex societies and move from foraging to agriculture and eventually ever more complex and sophisticated systems. But, those societies that developed and thrived simultaneously evolved the capacities and preferences for rule following behavior. In short, human culture, institutions and preferences co-evolved and made possible the social complexity that we now find normal (see also Henrich et al. 2001; Richerson and Boyd 2008).

Considering these insights, the image of human behavior as motivated only by rational maximization of self-interest is challenged not only by the discovery of “bounded rationality”

(Simon 1972), but also by an approach which perceives the maintenance of our identity as self-consistent and socially integrated individuals as the main driver of our behavior (Monroe 2001; Monroe and Maher 1995). It is important to note however, that these motivations are not fixed or omnipresent (Fishbach and Ferguson 2007) – they “fluctuate across time, persons, and context” (Leeper and Slothuus 2014, 139). Thus different persons will follow different motivations in different situations.

We would like to note that much of research cognition and cited above supports the insights offered by March and Olsen when they coined the term “Logic of Appropriateness” (March and Olsen 1983, 2006). March and Olsen argue that in addition to the “Logic of Consequences” humans operate according to what they feel appropriate. But how does one know what “appropriate” behavior is? Certainly, we can and do observe others’ behavior. But if all we did was follow the crowd, we would not know how to behave in novel situations. Due to our developed cognitive capacities and our desire for accuracy and consistency, even when we are totally alone and unobserved, most of us will abide by certain norms and rules. Why? because to behave differently would violate our need for accuracy and consistency. While there are exceptions to every rule, almost no one wants to think of themselves as acting randomly or behaving inconsistently. Even when we do so, we invent narratives through which we can ‘make sense’ of our behaviors.

Mechanisms - *How* people follow rules

The motivations described above help explain why humans generally follow social rules. But they do not tell us which specific cognitive mechanisms are at work when we are confronted with a certain rule or institution.

Beginning in the 1980’s researchers in social and cognitive psychology developed dual-process models of information processing (Chaiken 1980; Chaiken and Ledgerwood 2011; Chaiken and Trope 1999; Fiske and Taylor 1991; Petty and Briñol 2011; Petty and Cacioppo 1986; Petty and Wegener 1999). Dual-process models have been applied to the study of social attitudes, stereotyping, person perception, memory, judgment, and decision making. Kahneman’s (2011) description of two systems of thinking has spread interest in dual-process models way beyond the boundaries of cognitive psychology. While the emphasis in each of these lines of research varies,

the common thread is the idea that the human mind has developed multiple mechanisms for processing information. To simplify, it can be said that we have two key mechanisms: 1) a fast, associative and automatic information-processing mode based on low-effort heuristics, and 2) a slow, conscious, rule-based information-processing mode, based on high-effort, systematic reasoning (Chaiken and Trope 1999). In Kahneman's (2011, 20f) words "System 1 operates automatically and quickly, with little or no effort and no sense of voluntary control"⁴ while "System 2 allocates attention to the effortful mental activities that demand it, including complex computations." Dual process models have made clear that our mind can work in different modi. Which mode of information processing is activated in a certain situation depends on our motivation (e.g. interest in and personal relevance of the topic, need for cognition etc.), their ability (e.g. cognitive ability, knowledge, education) and opportunity (i.e. situational costs and constraints).

Individuals' decisions with regard to rule-compliance can also be triggered by two different kinds of processes. There are a range of different mechanisms, either conscious or effortful ones, or simple and more automatic ones, which lead our rule-compliant behavior. The *assumptions* of a motivation for accuracy and for affiliation described above *underlie* these cognitive mechanisms. This means that, acting upon the assumption that humans always strive to make sense of their environment, be accurate and consistent, connect to others and belong to groups, and, not least, to optimize their benefits, their decision-making can take different possible paths. In the following we will describe these mechanisms and their possible consequences for institutional stability and change in more detail.

High-effort mechanisms – Thinking Slow

There can be no doubt that under many circumstances individuals actively consider their rule following behaviors. We may be faced by a novel choice, or the crowd may not be moving in the same direction or speed. Under some circumstances we can come to believe that behaving or

⁴ Theorists assume a rational motivation of individuals to arrive at decisions and judgments as efficiently as possible see e.g. . This idea has been given different labels such as the "*least effort principle*" (Chaiken and Ledgerwood 2011), or humans as "*cognitive misers*" (Fiske and Taylor 1991).

acting in the ‘normal’ way may conflict with our self-interest. Moving in a new direction, or making choices that do not easily follow from previous behavior, however, requires significant cognitive effort. The implications of such conscious, effort-demanding thinking for institutional theory are important. We will develop these implications further below, but first we will give some examples for slow thinking.

According to Kahneman (2011, 21), high-effort thinking is “often associated with the subjective experience of agency, choice, and concentration.” Strategic calculation of costs and benefits is the most obvious, and the most prominently discussed, high-effort mechanism with regard to institutional behavior. Here, rule compliance is driven by the incentives and sanctions provided by the authorities, but also by fellow citizens. Institutions provide the framework of constraints within which individuals seek to optimize their utility. Functional rules yield optimal or satisfying outcomes and are therefore followed, while dysfunctional rules lead to suboptimal outcomes and can become subject to change. Thus in this case the expected consequences of rule compliance determine our behavior.

However, following March and Olsen, not only the consequences, but also the appropriateness of our behavior can become subject of high-effort thinking⁵. That is, rules should correspond to “a sense of rights and obligations derived from an identity and membership in a political community and the ethos, practices and expectations of its institutions”, in which case “rules are followed because they are seen as natural, rightful, expected, and legitimate” (March and Olsen 2006, 8). Rules which are perceived as appropriate and coherent with our values trigger a sense of civic duty, and concern for the common good. In this quote we can already see that, in addition to allowing strategic optimization, rules fulfil our needs for accuracy and belonging described above. Rules are thus accurate if they correspond to the prevailing social, cultural or moral values. Moreover, and also contained in the quote on appropriateness above, perceptions of fairness and legitimacy of rules are crucial for compliance (Rothstein 2011; Tyler 2006, 2013).

⁵ In their elaboration of the logic of appropriateness, March & Olsen (2006) stress at several points that following the logic of appropriateness requires effortful cognitive processing, for example: “following rules of a role or identity is a relatively complicated cognitive process involving thoughtful, reasoning behavior” (p. 690). At the same time they acknowledge that “most actors, most of the time [...] take the rule as a ‘fact’” without any “need to go behind it” (p. 693). This happens when rules become habitual. We conclude from this that March and Olsen implicitly recognize the duality of cognitive mechanisms described in this paper and that the logic of appropriateness can be followed through both kinds of mechanisms, cognitively effortful, slow thinking and low-effort, fast thinking.

Conscious and high-effort thinking is needed in order to judge whether rules are fair and legitimate.

What all high-effort mechanisms have in common is that they can lead to the acceptance of and compliance to rules – and thus to institutional stability – but they can also lead to the questioning and rejection of rules. Rules can be rejected as yielding unsatisfactory outcomes, as inappropriate, as unfair, or as not corresponding to certain moral or cultural values. In these occasions, where rules are judged to be dysfunctional, the opportunity to change the rules arises. Thus the operation of conscious and effortful cognitive mechanisms is an important precondition for institutional change. Most of the time however, we do not put as much effort in scrutinizing the rules of our everyday life.

Low-effort mechanisms – Thinking Fast

While humans are capable of ‘thinking slow,’ most of the time individual thinking and acting occurs intuitively, automatically, with little effort and without a sense of voluntary control. Cognitive mechanisms and behavioral patterns can become automatized either because they are transmitted through evolution, or alternatively because they are repeatedly experienced through practice (Kahneman 2011). As with conscious and deliberate thinking, these automatic mechanisms also help us to fulfil our different basic motivations. Some mechanisms can facilitate cognitive efficiency, that is, help us to be as accurate as possible with as little effort as possible. Others, such intuitive group-conformity, satisfy our need to belong with little cognitive effort.

At a very general level, individuals make pervasive use of schemas and heuristics in their everyday thinking and behavior. *Schemas* are defined as “mental structures people use to organize their knowledge about the social world” (Aronson, Wilson, and Akert 2005, 59) and as such they can contain different kinds of knowledge, including knowledge about ourselves, other people (e.g. stereotypes) or about appropriate behavior in social situations (see also Bartlett 1932; Markus 1977; Nisbett and Ross 1980). The concept of schema is based on the premise that our memory structures contain systematically stored information about the outside world and this representations determine how we interpret reality (Lodge et al. 1991). *Scripts* are one form of schema, which is related to mental representations of behavior. Mental scripts “embody knowledge of stereotyped event sequences” (Abelson 1981, 715) and as such they provide

guidance on how to behave in a certain situation. Scripts are activated once someone is exposed to certain context stimuli. If we go to a restaurant for example, we will automatically activate a 'restaurant-script', that is we will sit down at a table, wait for the waiter to bring us the menu, choose food and drinks, order etc. All these elements of the script don't have to be thought through consciously, they are activated automatically once we find ourselves in a certain situation.

The rules or norms of a community can constitute cognitive schemata or behavioral scripts which members of that community are inclined to follow automatically and unconsciously. Thereby the accessibility of a schema determines whether it is activated or not (Higgins 2011). Schemas can be accessible because of past experience, that is because we developed a *habit* (Aarts and Dijksterhuis 2000; Aarts, Verplanken, and van Knippenberg 1998). Habits in the context of following social norms are conceptualized as "situational norms" (Aarts and Dijksterhuis 2003). Situational norms "represent generally accepted beliefs about how to behave in particular situations and are learned by associating normative behavior to these situations" (ibid, 18). Thus situational norms are basically scripts of appropriate behavior that become automatically activated once we enter a certain situation. The conscious awareness of a situational norm is not necessary to evoke normative behavior. Someone who enters a library will, for example, immediately be silent, someone who encounters a queue will automatically line up at the end of the queue, in certain communities people will automatically wish "bon appetit" before starting to eat or say "bless you" when someone sneezes. All these behaviors are carried out fast and without any cognitive effort. Habitual norms serve our need for cognitive consistency, as they make it easy for us to think and behave consistently over time and over different situations.

All these low-effort strategies have in common that they are applied intuitively and without much reasoning. This does not mean that they are always biased, misleading, or even irrational – they can be perfectly efficient and lead to desired outcomes without using too much effort. On the other hand of course, automatic and unconscious processes can lead us astray; they can bias our thinking and behavior. Furthermore, it is important to point out that the two ways of information processing described above – effortful vs. automatic – are not assumed to be mutually exclusive, but rather to build a continuum and to interact with each other. This means that an individual will often combine elements of reasoning and strategic calculation with simple schemata and heuristics, thereby trying to reach a *sufficient level of confidence in his judgment* using as little

effort as possible – a phenomenon defined as the “sufficiency threshold” (Chaiken and Ledgerwood 2011, 248).

What do I do for example, when after eating an ice-cream on a walk through the city I am left with the empty package, but there is no waste bin in sight? I might be torn between the desire to contribute to a clean environment and the inconvenience of carrying around waste – both conscious, high-effort, strategic calculations. If now I walk through a dirty and polluted area, or if I even see other people littering around me, it will be much more probable for me to throw my waste on the floor as well, my sufficiency threshold of conscious weighing the pros and cons will be reached and a low-effort imitation mechanism will be activated (littering behavior such as this has been analyzed in a series of field experiments by Cialdini, Reno, and Kallgren 1990). The contrary can happen as well, namely that I rely on a simple decision-heuristic and then engage in post-hoc reasoning in order to justify my behavior. In the situation described above, I might think, after having dumped my waste on the floor, that littering is not such a problem after all, because the municipality has enough resources to clean the public space. Such post-hoc rationalizations are a typical mechanism of cognitive dissonance reduction. These examples illustrate that the division between the two systems of thinking is rarely clear-cut. Kahneman describes the interdependence of the two modes of thinking like this: “I describe System 1 [low-effort] as effortlessly originating impressions and feelings that are the main sources of the explicit beliefs and deliberate choices of System 2 [high-effort].”

We believe that the implications of these insights for institutionalist theory are obvious. Rather than the idealized rational actor who comes to each decision and calculates the best alternative according to her utilities, what the behavioral research generally finds is that people scarcely ‘think’ about what they should do or how they should act most of the time. How do we know what we should do, or how we should act if we do not carefully consider the question? We do as we did before and/or we note the patterns around us (sometime subliminally) and behave as others do.

Explaining Institutional Stability and Change

Steinmo and Thelen's volume *Structuring Politics* (Steinmo and Thelen 1992) identified the need to better integrate 'ideas' into the study of institutions and the need to better explain 'change' as the two most important agenda items for institutionalist literature. As Sarigil (2014) has recently observed, there are two historical institutionalisms that have grown out of these puzzles - one which takes a more structural and material view of human choice in historical context (Mahoney and Thelen 2009; Pierson 2004; Streeck 2009; Thelen 2004), another that "takes ideas seriously" (Berman 2001; Blyth 1997; Campbell 1998; North 2005, 2008; Weir 1992). We submit that rather than trying to separate these issues, taking a cognitive view of these puzzles allows us to bring them together. To make it even more complex, however, we also think these two mechanisms can be related.

How cognition relates to institutional choices

Table 1 links the cognitive mechanisms to patterns of institutional change and continuity.⁶ Very often the operation of cognitive automatisms such as schemas, heuristics conformity pressures and dissonance reduction prevents institutional change. Most changes of rules happen when individuals – or at least one individual – decide to switch to an effortful, conscious, analysis of the situation. High-effort, conscious, thinking can lead individuals to question rules and as a consequence bring about institutional change – what we call optimization. This might happen with the explicit goal to optimize the working and the outcomes of a certain institution for the society and the common good, but it might also happen, when individuals repeatedly circumvent

⁶ Note that, different from previous typologies of institutional change, such as e.g. Streeck & Thelen 2005, we focus on processes of change and continuity which are caused by human actors, and we do not include processes emanating from the structural properties of the institutions themselves and their context.

a rule for their own profit and eventually force the lawmaker “to revise the law in order to restore it” (Streeck & Thelen 2005: 15).⁷ Thus, optimization does not necessarily lead to efficient institutions. Neither does optimization have to be led by considerations of material consequences; the aim can also be to optimize the appropriateness of an institution in a certain social context. High-effort reasoning might also lead to institutional stability however, in instances where an institution is accepted and maintained out of conviction, either because it yields satisfying outcomes or because it is perceived as appropriate (as shown in the upper-right tab of table 1). Also in this case, not only efficient institutions will be maintained. Inefficient institutions which yield enough benefits for, or are deemed appropriate by certain actors are maintained as well (in fact it is the reality that a majority of the world’s population lives under such inefficient institutions⁸).

Cognitive automatism, on the other side, most often lead to the reproduction of rules and therefore contribute to institutional stability and consistency. Such low-effort rule-reproduction can explain why even inappropriate or inefficient institutions sometimes persist over time – there is a lack of conscious effort to optimize them, institutions are neglected and not adapted to changing circumstances (as shown in the lower-right tab). However, even if rules are not consciously or deliberately adapted, institutions might change if actors fail in reproducing the rules perfectly. Imperfect replication of schemata can lead to variation in rules, even if this is not intended by the actors (Lewis and Steinmo 2007; Lewontin 1974)⁹. In addition, despite of automatic rule reproduction, institutions can change if the external circumstances change. This has been called “drift” in institutional literature (Hacker 2005; Streeck and Thelen 2005). This phenomenon constitutes the lower-left tab of table 1.

⁷ This field can include different forms of institutional change such as displacement, layering, conversion (see Streeck & Thelen 2005). However, linking our types of change and continuity to previous typologies in a consistent way is beyond the scope of the present paper.

⁸ Thanks to Bo Rothstein for this important indication.

⁹ Thanks to Herman Schwartz for this important indication.

Table 1: While low effort mechanisms are mainly responsible for rule following and consistency in institutions, high-effort mechanisms open up the possibility for rule change.

	INSTITUTIONAL CHANGE	INSTITUTIONAL STABILITY
High cognitive effort	<p>Deliberate change and optimization</p> <ul style="list-style-type: none"> – Rules do not yield optimal outcomes – Rules are not appropriate 	<p>Rule compliance from conviction</p> <ul style="list-style-type: none"> – Rules yield optimal outcomes – Rules are appropriate
Low cognitive effort	<p>Drift and imperfect replication</p> <ul style="list-style-type: none"> – Changing circumstances lead to change of institutions (drift) – Imperfect replication of rules leads to change in institutions 	<p>Reproduction</p> <ul style="list-style-type: none"> – Automatic reproduction of rules

History, Path Dependence and Cognitive Frames

So far we have focused on the micro-foundations of institutional behavior. Figure 1 shows a strongly simplified version of the relations between human motivations, cognitive mechanisms, institutions, and behavior. In the previous paragraphs we have discussed mainly the solid lines in the model, that is the influence of actors' motivations and rule compliance mechanisms on actors' institutional behavior, which in turn affects institutional stability and change. However, the context in which individuals are embedded is not to be left out of the picture.

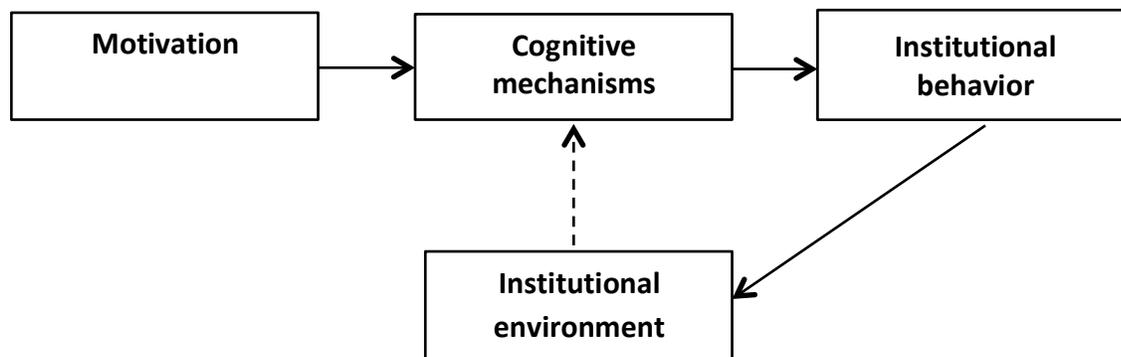


Fig. 1: Relation between motivations, mechanisms, institutions, and actors' institutional behavior (adapted from Leeper and Slothuus 2014, 140).

In this case the context consists of a certain historical, cultural, and institutional environment, that is, of the actual institutions that are in place in a certain society. As institutionalist scholars, and in particular historical institutionalists, have recognized long time ago, the historical context plays a crucial role in shaping this institutional environment. Not only the formal structure of the institutions is affected by historical events and processes, history and culture also create the narratives and frames through which institutions are perceived in individual actors' minds (this process is depicted by the dashed lines in figure 1). These frames in people's thinking, once created, can prove extremely resilient to change (see e.g. Friedland and Alford 1991).

Historical institutionalism, in contrast to rational choice institutionalism, has always made the point that preference formation is an endogenous factor to political institutions (Steinmo and Thelen 1992; Thelen 1999), and that institutions build the context within which interest and objectives are defined. As Thelen and Steinmo (1992, 9) have formulated it:

By taking the goals, strategies, and preferences as something to be explained, historical institutionalists show that, unless something is known about the context, broad assumptions about 'self-interested behavior' are empty.

Thereby, the concept of *path dependence* is one of the very central ideas in historical institutionalism. Following Pierson and Skocpol (2002, 6), path dependence implies that "outcomes at a 'critical juncture' trigger feedback mechanisms that reinforce the recurrence of a particular pattern into the future". Pierson (2000) has proposed "increasing returns" as the main explanatory mechanism of path dependence. The notion of increasing returns is strongly oriented at an economic perspective of strategically calculating actors.

In contexts of complex social interdependence, new institutions and policies are costly to create and often generate learning effects, coordination effects, and adaptive expectations. Institutions and policies may encourage individuals and organizations to invest in specialized skills, deepen relationships with other individuals and

organizations, and develop particular political and social identities (Pierson 2000, 259).

We think however that the *cognition of actors* is just as important as a mechanism of path dependence. Pierson (2000, 259f) also points out that the “complexity and opacity of politics” makes it difficult for individuals to recognize the potential gains and losses and thus to act strategically in many situations. In such a complex environment, he states, the perceptions individuals have of existing institutions “heavily biases” the thinking of actors in that “confirming information tends to be incorporated, and disconfirming information is filtered out”. Such confirmatory cognitive biases make existing perceptions and knowledge about institutions very difficult to change and thus they constitute an additional mechanism of path dependence.

In fact, as mentioned above, such confirmatory biases have been extensively researched in social and political psychology (Ditto and Lopez 1992; Ditto et al. 1998; Kunda 1990; Lord, Lepper, and Preston 1984; Munro and Ditto 1997; Taber, Cann, and Kucsova 2009; Taber and Lodge 2006). Confirmation bias, or – more generally – motivated reasoning, describes a process whereby human reasoning is not necessarily led by a goal to be accurate and adapt existing beliefs to new information – what has been called ‘learning effects’ in path dependence – but more often by personal motivations to protect existing beliefs. This means that individuals select and process information in a biased way, preferring information that is consistent with their existing knowledge and at the same time disregarding and/or devaluing incompatible information (see Kunda 1990 for a review).

Recent studies in political psychology and public opinion research have found evidence for confirmatory reasoning processes on political opinions on such different issues as the 2003 Iraq war (Gaines et al. 2007), political corruption in Spain (Anduiza, Gallego, and Muñoz 2013), climate change policies (Hart and Nisbet 2011), perceptions of the economy (Evans and Andersen 2006; Gerber and Huber 2010; Ramirez and Erickson 2014), or welfare and health care policies. Gaines et al (1997) for example were able to show how, during the 2003 Iraq war, democrats and republicans constantly interpreted the level of American casualties differently – republicans evaluating it as low or very low and democrats as high or very high. This held true despite the fact that both groups possessed accurate knowledge about the absolute level of

casualties (through media reporting). This example illustrates how the same political reality can be perceived very differently depending on an individual's predispositions.

In a similar way we assume that people's interpretation of their institutional environment is very much dependent on the cognitive frames they possess of these institutions. Due to a confirmatory bias in information processing the cognitive perceptions – or frames – of existing institutions in people's minds are hard to change and changes which once happen often prove extremely persistent and difficult to reverse.¹⁰ Which frames or perceptions individuals hold of the institutions and rules surrounding them is in turn shaped by history and by the culture in which they live. The same institution might evoke very different cognitive perceptions in different societies. As, due to confirmatory thinking, these different perceptions of one and the same institution will be enduring and resistant to change, they will contribute to the persistence and stability of the institutions themselves – unless someone consciously and deliberately introduces changes. In this way cognitive mechanisms contribute extensively to path dependence. These mechanisms, though they have been mentioned (see e.g. Pierson 2000), have not been explicitly analyzed by institutionalist scholars so far.

Conclusion

This essay seeks to make several contributions to the study of institutions. First, the micro-level perspective of social and cognitive psychology is introduced by putting the question *why individuals follow rules* at the center of attention. Second, basic human motivations are introduced, which explain the general tendency to follow rules. Humans as fundamentally social beings and at the same time as constantly searching for explanations and patterns become humans inclined to follow rules. The consideration of these two fundamental motivations adds to the dominant perspective of human behavior as strategic efficiency-maximization within institutional constraints. Third, a distinction is made between two kinds of mechanisms of rule-compliance –

¹⁰ A key reason it is difficult to change these frames, or „Pictures in our heads“ is rooted in our desire for consistency, discussed above. If we ‚change our minds‘ we may have difficulty justifying it to ourselves.

conscious, high-effort thinking and low-effort automatic behavior. The idea that low-effort, automatic cognitive mechanisms are responsible for a large part of our everyday rule compliance has not been considered so far. We offer an explanation of institutional stability and change based on the cognitive mechanisms employed by individual actors. Finally, we come back to historical institutionalism in emphasizing the central role, history plays in shaping actors' behavior, as all human behavior occurs within a certain historical and cultural context. Thereby, we take once more the perspective of cognitive psychologists and add the concept of confirmatory or motivated reasoning as one possible mechanisms of institutional path dependence.

Agency is crucial in bringing about institutional change (see e.g. Katznelson, Streeck & Thelen), but agents' behavior is just as important in explaining institutional continuity, in particular also the continuity of inefficient institutions which are often reproduced through automatic and unconscious cognitive mechanisms such as the ones we described. Agency means not only active, deliberate, and conscious dealing with institutions, but also automatic, unconscious acting and reacting within existing institutions

Knowledge on these insights from cognitive and social psychology allows to see the links between individual behavior and institutions much more clearly. Interactions of actors and institutions can be described and explained in a more nuanced fashion, considering the variety in institutional settings, situational and societal contexts, and individual-level motivations and mechanisms. Working out all possible interactions of human motivations and thinking with different institutional contexts is beyond the scope of this paper. Nevertheless, we offer a 'toolkit of micro-level theories' which can be used to explain individuals' behavior within certain institutional circumstances.

We think that all three 'traditional' strands of institutionalism have implicitly or explicitly made suggestions to go in this direction. While rational choice institutionalism has gone the furthest in providing a possible micro-foundation of institutional study, based on rational actors, sociological institutionalists have emphasized the importance of appropriateness as an alternative individual logic of action. Historical institutionalists on the other side have increasingly emphasized the key role of 'actors' and 'agency' in institutional evolution, without specifying *why* and *how* these actors act the way they do. In making a link to psychological theories – and thus bringing people

back in – we add a new and more nuanced micro-perspective to the existing institutional literature.

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