

## What Are the Psychological Microfoundations of Organisational Routines?

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The study is a comprehensive introduction to the psychological version of the so-called microfoundational approach to routines. It focuses on the problem of how psychological micro-level phenomena and processes of individual actors affect the organisational macro-level of routines. More specifically, the study proposes to explain the sources of macro-level automatic stability and resourceful flexibility of routines by psychological habits and psychological flexibility.

The approach presented in the study promises not only the level of detail that has not been present in extant investigations of routines research, but also a new account of the classic problem of the opposition between automaticity and flexibility of routines.

**Keywords:** organisational routines, microfoundations, habits, flexibility, automaticity.

## Czym są psychologiczne mikropodstawy organizacyjnych działań rutynowych?

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Artykuł stanowi wszechstronne wprowadzenie do problematyki tzw. mikropodstaw organizacyjnych działań rutynowych w wersji psychologicznej. Tekst koncentruje się na tym, w jaki sposób psychologiczne zjawiska i procesy na mikropoziomie indywidualnych aktorów organizacyjnych wpływają na makropoziomie organizacyjnych działań rutynowych. Artykuł stara się wyjaśnić szczególnie, źródła automatycznej stabilności oraz elastyczności występujących na makropoziomie działań rutynowych poprzez specyfikę nawyków psychologicznych oraz elastyczność psychologiczną.

Ujęcie proponowane w tekście nie tylko pozwala osiągnąć taki poziom szczegółowości, który dotychczas nie był obecny w badaniach nad działaniami rutynowymi, lecz także stanowi nowe ujęcie klasycznego problemu opozycji między automatycznością i elastycznością działań rutynowych.

**Słowa kluczowe:** organizacyjne działania rutynowe, mikropodstawy, nawyki, elastyczność, automatyczność.

**JEL:** B410, L290, Y80

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## 1. Introduction

Routine as such is associated with boredom, repetition or stagnation. One settles into a routine when there is no possibility or opportunity for invention or creativity – when a habit of doing the same constantly prevails over ingenuity, spontaneity or creative planning. Commonly understood routine has, therefore, negative connotations. From the perspective of research within the organisational theory and the theory of action, this negative dimension of routine, however, appears to be only a narrow issue associated with routines.

In the light of organisational theory, routine is no more than a degenerate form of *routines*. Routines, generally understood as patterns of interdependent activities and procedures structuring, governing, controlling and automating organisational activities, are among key issues raised in the organisational theory since they define the basic organisational modus operandi within the paradigm assuming *boundedness of human resources* (Louis & Sutton, 1991; March & Simon, 1958). A long list of examples of routines could, therefore, go on: from standard recruitment procedures, through business or organisational meetings with an appropriately structured agenda, to activities such as defining the scope of a business process under BPI or radiation control in nuclear power plants.

The debates to date on the nature of routines have been largely driven by two fundamentally opposing groups opting for extremely different understandings of the term (Becker, 2004). Supporters of the chronologically first group descending from the tradition of March and Simon's "action programmes" professed the thesis of "mindless automaticity" of routines (Ashforth & Fried, 1988), which explains organisational inertia (including a negatively understood routine) well. In contrast, researchers belonging to the group which puts primary emphasis on the possibility of explaining the change, dynamics and flexibility of the organisation in the face of challenges involved in standardisation and a changing environment advance the thesis of "effortful accomplishment" (Feldman & Pentland, 2003; Pentland & Rueter, 1994). Today, a number of intermediate positions exist that try to find the middle ground for the concept of routines. Some of them use, for example, psychological research on habits whose empirical nature seems to naturally back some theses professed by the "automaticity" group.

The purpose of this article is to find out about how psychological research on habits (and other issues such as psychological flexibility, in particular) can support a certain vision of routines. The assumption that habits at the level of individual psychology of organisational actors are relevant to the nature of routines at the organisational level is associated with the programme referred to as *psychological microfoundations* of routines (Winter, 2013)<sup>1</sup>. A programme is mentioned here because this issue has been studied only under preliminary or partial approaches whose empirical adequacy usually

does not go beyond a certain methodological creed. The elementary goal is to show that the assumption of the “microfoundational” nature of psychological research for studies on Organisational Routines (hereinafter ORs) allows the dichotomy of “mindless automaticity”/“effortful accomplishment” to be abandoned in a new way. In other words, the specific psychology of individual actors allows – essentially without taking into account the advantages and disadvantages of research on macrofoundations of ORs within social theory and sociology – for explaining both the negative aspects of routine automaticity and the emergence, stability or change of routines.

It transpires that a key issue in this respect is not so much the traditional division into automatic/habitual and reflective/deliberative practices (cf. Kahneman’s Systems 1 and 2 (Kahneman, 2011)) but rather the specification of psychological determinants that allow one of these two modes of organisation of actions to be triggered. Whether a given type of practice looks reflectively or automatically regulated is a matter of more fundamental determinants belonging (or not) to the characteristics of the psychology of individual actors creating this practice. Showing their interrelationship, these determinants largely undermine the usual opposition between the automatic and the reflective.

This text consists of five parts. The first step is the introduction of ORs and identification of the main distinguishing features of the two mentioned groups. In the second step, the microfoundations research programme within the organisational theory is generally discussed, covering its definition and the main argument for its relevance. Step three explains what issues fall within the scope of the OR microfoundations study. Step four (crucial for this text) is a slightly broader elaboration on these issues. It shows how adopting the assumptions of the OR microfoundations study allows approaching specific questions about the nature of ORs both in theory and in the empirical dimension. This permits the estimation of the actual potential of explanatory power that the OR microfoundations research programme has and (fifthly) a return to OR reflectivity. Finally, the importance of OR research for the philosophical theory of action is pointed out since, as it turns out, this issue, as fundamentally different at the level of granularity from the psychology of habits (Wood & Rüniger, 2016), seems not to have been noticed in the philosophy of action whatsoever.

## 2. Nature of Routines

The understanding of ORs as suggested above, that is as patterns of interdependent actions and procedures structuring, governing, controlling and automating behaviours in firms, companies, consortia, corporations, etc., as part of their internal organisation and contacts with the environment, does not prejudice whether they are essentially performed mechanically or whether they each time require an effort in the form of strategic thinking

and reflection. ORs might sometimes require a considerable mental effort and at times they are largely mindless, depending on their type, complexity and organisational context. However, the fact that ORs as such are necessary for multi-entity structures to operate relatively smoothly indicates that the view that they minimise the role of deliberation and are thus automatic is one of the sources of dispute about the nature of ORs.

According to the group supporting the “effortful accomplishment” thesis, advocates of automaticity have overlooked or insufficiently taken into account the fact that even highly automated, repetitive actions are never the same, meaning the need for reflection to maintain stability and continuity of action (Pentland & Rueter, 1994). Deviations from the assumed standard also give rise to performance errors. Consequently, an adequate understanding of ORs must take into consideration their dynamics, i.e. changes and adaptation in response to challenges arising out of internal and external organisational processes (Feldman, Pentland, D’Adderio, & Lazaric, 2016). This, in turn, requires a different perspective from that deriving from the tradition of automaticity.

One of the classic texts proposing this new perspective is the work by Martha Feldman and Brian Pentland (2003). These authors refer to categories derived from Pierre Bourdieu’s theoretical sociology, in particular from a strongly metaphorical distinction between the so-called ostensive and performative aspects of ORs<sup>2</sup>. They can be described as follows: the ostensive dimension of a routine covers the “what” – an abstract, more or less rigidly defined scenario of performing specific actions. The performative dimension of a routine is everything that is related to the practical context of ORs, i.e. somewhat specific actions performed each time by actors as part of the implementation of a pattern or procedure established within ORs. Let us look at an example. Recruitment in some departments in the IT industry is done by phone. In addition to this general rule, the telephone conversation itself requires recruiters to perform a specific set of actions (e.g. ask a sequence of questions). This set can be written as a certain script (Ashforth & Fried, 1988) binding upon all recruiters; however, it is impossible to definitely determine how this script will be put into practice. Each implementation has its own specificity, given every recruiter’s ability to interpret it, communication skills, knowledge, time and conditions, etc. It could, therefore, be said that what the authors term the OR ostensive dimension boils down to what can be semantically described as a given routine, whereas the OR performative dimension is the pragmatic context of each attempt to apply this definition and notions in organisational practice. It is the context of application revealing the specifics of organisational practice and the way in which this practice copes with the environment that generates deviations from the assumed patterns, largely making it possible to change behaviours. The fact that recruitment in the IT industry is oftentimes done by phone is a response to the specificity of IT employees (e.g. a traditional

interview has proved less efficient), and this can only be recognised within the pragmatic context of a previously adopted recruitment script. Therefore, an OR is not only a certain objective pattern of action for organisational actors but also a specific perspective adopted by these actors (and each specific implementation of this perspective) on that pattern. Both aspects are necessary to speak about ORs. Combining these aspects into an efficient whole created from a repertoire of the actors' possible actions can thus be construed as an effortful accomplishment (Pentland & Rueter, 1994).

Obviously, the relevance of this approach to ORs is difficult to challenge. It should be noted, however, that by adopting such a point of view, apart from accepting (firstly) the distinguished role of sociological inspiration, we agree (secondly) to the thesis that the automaticity-related perspective actually overlooks what essentially underlies Feldman and Pentland's considerations, namely the *improvisational* (pragmatic, always unique) dimension of ORs. Meanwhile, both steps do not seem necessary to propose a promising OR theory. First and foremost, the distinction of a sociological perspective may imply that the actors' psychological mechanisms responsible for each practical implementation of a specific OR practice in a macro scale will not be adequately spotted and understood. Secondly, by adopting a "black and white" approach to the dispute (Levinthal & Rerup, 2006) that eliminates the perception of ORs as "automatic" due to the role of "effortful accomplishment", we drastically narrow down the scope for slightly more nuanced approaches. For this reason, literature contains (rather few) attempts to show that there is no contradiction between these supposedly opposite views (Levinthal & Rerup, 2006; Parmigiani & Howard-Grenville, 2011; Pentland & Rueter, 1994). The explanation of the nature of ORs in this text is part of these attempts by explicitly including psychological mechanisms in combination with the automaticity model.

### **3. Microfoundations Research Project**

Until now, a far-reaching similarity between the characteristics of habits in cognitive psychology and OR characteristics in the organisational theory has been regarded as one of the key, though rather cursorily outlined, arguments for the programme of research into psychological microfoundations of routines within the automaticity paradigm. This similarity consists in both individual psychological habits and organisational routines working as part of what Kahneman called System 1 "fast thinking", meaning that they generally do not require much deliberation and reflection (Winter, 2013). In fact, many considerations proposed in classic texts written by automaticity supporters have been confirmed by empirical research on the characteristics of individual psychology of habits. Before this issue is discussed, it is worth paying attention to the very assumptions of microfoundations research.

Although the question of microfoundations has been present in the organisational theory for over a decade (cf. one of the first texts – the work by Lippman and Rumelt (2003)), researchers rarely define this term directly and often use it implicitly. Other approaches include, for instance, the identification of the microfoundations research programme with reductionism as regards organisational phenomena (Rogan & Mors, 2014; Grigoriou & Rothaermel, 2014) or with methodological individualism (Felin & Hesterly, 2007; Lindenberg & Foss, 2011). Even though these approaches are not fundamentally wrong, they can give rise to numerous ambiguities, especially in view of trends in social sciences, which have profoundly criticised broadly understood reductionism and methodological individualism. Despite the fruitfulness of macro research on organisational phenomena, it is possible to observe the current continued relevance of attempts to study organisational phenomena in a manner that assumes the existence of elements or processes that are more elementary and basic than these phenomena. Microfoundations constitute a certain research field or movement within the organisational theory and strategy (macro-management) that is already a subject of methodological and science-studies-related meta-considerations, both in terms of the origins and conceptual and theoretical specifics on the one hand and empirical perspectives on the other (Felin, Foss, & Ployhart, 2015; Foss, 2016). For this exploration, microfoundations research can be described as

**[Df.1] Microfoundations:** a research programme in which the key type of explanation of a given organisational phenomenon  $P$  occurring at the ontological level  $O_m$  at a given time  $t_n$  and interacting with other organisational phenomena  $P_n$  at  $O_m$  is such that:

- (1) for  $P$ , there is always a set of micro-phenomena  $MP$  (actors, processes and their properties) at the  $O_{m-1}$  level at  $t_{n-1}$  (where  $m-1$  means that the ontological level of the  $MP$  set is more fundamental than the  $O_m$  level for  $P$ , and  $n-1$  means that  $MP$  precedes  $P$  in time),
- (2) the elements of  $MP$  occurring at  $O_{m-1}$  have a significant impact on the content of  $P$  and its potential impact on (or interactions with)  $P_n^3$ .

This simple definition basically suggests two things. Firstly, the existence of a level of organisational phenomena assumes a slightly more fundamental ontological level that precedes and to some extent determines these phenomena – this is the level of organisational actors, structures they build and processes that occur among them (in a highly simplified and trivialised version, this can be summarised as the saying: *organisation is people* (Powell & Rerup, 2017)). Since still further levels can be distinguished at the macro level, talking about microfoundations fits into the wider context of recently popular multi-level research. Secondly, the microfoundations programme involves not so much mechanical introduction into the organisational theory

of some type of knowledge or concepts present in micro research, e.g. cognitive psychology (Barney & Felin, 2013; Felin et al., 2015) but the observation of their implications for selected branches of the organisational theory. In this sense, the study of microfoundations requires the recognition of common contexts and similarities between organisational and more fundamental phenomena and the extent to which the former have their origin in or are enabled by the latter.

At least several reasons for studying microfoundations of organisational phenomena, despite their successful explanation in a macro scale, can be pointed out (cf. Felin et al., 2015). In addition to the classic methodological arguments (cf. reductionist programmes in physics, chemistry and biology and the issue of explanatory economy/empirical hypotheses economy), one point seems to be crucial. Namely, if we agree that a given organisational phenomenon has its origins in the domain of simpler or more fundamental phenomena, then – as noted by Felin et al. (2015) – disregarding the latter’s impact on this phenomenon would result in the involuntary creation of explanatory “black boxes”. Since the work by Mario Bunge (Bunge, 1963), “black boxes” in social sciences have been regarded entities or objects known to possess certain transfer characteristics but their internal specificity or mode of operation remains opaque. In the context of relevance here, this means that we agree with the thesis that organisational phenomena originate from or are significantly determined by the individuals who create them (actors) and their interactions but how they affect these phenomena remains a mystery. The study of microfoundations that opens up such “black boxes” seems to be a completely justified strategy in the organisational theory<sup>4</sup>.

#### **4. Microfoundations of ORs**

In the light of these comments, the above-mentioned similarity between the general characteristics of habits at the level of actors’ psychology and some classic approaches to ORs (represented by automaticity supporters) perfectly fits into the programme of OR microfoundations research. While the microfoundations research programme does not, from a methodological point of view, determine that ORs must be studied by means of the theory and empirical knowledge of cognitive and social psychology (cf. Df.1) and that what is actually interesting is the level of individual actors and their characteristics, it is the similarities between psychology of habits and a selected type of OR characteristics that already suggest some interpretive and research perspective.

Let us reiterate: it was initially assumed that neither the adoption of a sociological perspective as a distinctive approach to ORs nor the thesis that automaticity excludes adequate consideration of the improvisational

dimension of ORs is necessary for a critical and cognitively attractive theory of routines. In this context, it turns out that the study of OR microfoundations by means of cognitive psychology theories and methods makes it possible not only to partially free the OR theory from (heavily exploited) inspirations in the field of sociology and social theory but also to shed new light on the potential of automaticity in the context of real practice (including improvisation: as part of ORs)<sup>5</sup>.

The basic idea behind the application of a microfoundations strategy to ORs is, therefore, to explain the nature of routines by resorting, in the first place, to the knowledge of psychology of individual actors<sup>6</sup>.

**[Df.2] OR microfoundations:** a research programme in which the key type of explanation of selected organisational routines (*OR*) falling within the scope of organisational phenomena *P* occurring at the ontological level  $O_m$  at a given time  $t_n$  and interacting with other organisational phenomena  $P_m$  at  $O_n$  is such that:

- (1) for *OR*, there is always a set of psychological micro-phenomena *PMP* (actors' characteristics) at the  $O_{m-1}$  level at  $t_{n-1}$  (where  $m-1$  means that the ontological level of the *PMP* set is more fundamental than the  $O_m$  level for *P*, and  $n-1$  means that *PMP* precedes *P* in time),
- (2) the elements of *MP* occurring at  $O_{m-1}$  have a significant impact on the content of *OR* and its potential impact on (or interaction with)  $P_n$ <sup>7</sup>.

Thus, the assumption is that ORs are a form of organisational macro-phenomena and what we know (and can know) about the psychology of individual actors is not neutral to our understanding of what is happening at the OR level. Of course, reducing the issue of microfoundations to psychology is a narrowing in the context of ORs. Nonetheless, there are several possibilities of studying the relationship between ORs and the psychology of individual actors. First and foremost, we can, for example, ask – in response to the challenge from the supporters of “effortful accomplishment” – *how routines change* because of the specificity of each implementation by actors (Feldman & Pentland, 2003). Secondly, a question can be asked – as some continuation of the line of “automaticity” supporters – about *micro-mechanisms responsible for the stability and durability of ORs*. Thirdly, we can observe those *mechanisms that favour the emergence (or not) of a routine* within the existing structure of designed or planned actions. With such three basic options so defined for explaining the nature of ORs, a question can finally be asked about our initial issue, namely the *degree to which ORs are reflective/deliberative*<sup>8</sup>. Each of these questions individually provides grounds for resorting to the microfoundations research programme. Further in the text, the main issues are discussed briefly. Their theoretical and empirical exploration can provide a promising answer to each of these questions.



### a. Microfoundations of OR Stability

In the research on ORs, there is a tradition of recognising them as complexes of habitual behaviours (interdependent habits) (Hodgson, 2008; Turner & Cacciatori, 2016). The approach whereby habits are the building blocks of routines can be followed in three variants. Habits can be understood broadly and sociologically (as inspired by theories by Dewey and Bourdieu) – in this regard, the explanation using this concept basically remains one-level (macro-macro). They can also be construed in a standard, narrow way as used by contemporary cognitive psychology. Finally, some approaches diversify this notion, proving the sensibility of both its narrow and broad interpretation in the context of ORs (Turner & Cacciatori, 2016). The last two approaches can be applied without sacrificing the microfoundations methodology; there are already relevant examples in the literature (Winter, 2013).

Comments on OR stability begin with a discussion of the habit-related tradition because it is the similarity between the general picture of psychological habits and the picture that emerges from the work by supporters of OR automaticity as indicated at the beginning of the previous section that allows, first of all, a good explanation of this stability. Psychology understands habits as dispositions to act (and actions resulting from these dispositions being updated) internalised through repeated responses to certain contextually defined stimuli. They form specific associations in memory that in turn produce specific, schematised and default behaviours (or inclinations towards such behaviours) (Wood & R nger, 2016). This means that, as a rule, they do not require conscious decisions, clearly specified intentions, planning or control on the part of reflection. Habits are, therefore, performed *automatically* (Bargh, 1994; Di Nucci, 2013; Wood & R nger, 2016) and, as such, constitute a class of more broadly understood automatic actions (Makowski, 2017). Obviously, examples that psychology refers to and attempts to study empirically usually involve very simple scenarios. Let us take, for example, an experiment known in some circles in which the habit of eating popcorn at the cinema was studied (Neal, Wood, Wu, & Kurlander, 2011). It turns out that the habit of buying and eating popcorn because of the very visit to the cinema (a response triggered by a contextually defined stimulus) is activated regardless of whether the popcorn is fresh or not. Habits are, therefore, somewhat insensitive to factors that would change the nature of the actor's actions in other conditions (here: determined by preferences). This explains their relative stability, but also their inertia. Hence, if we assume that ORs are anchored in the stability of psychological habits that constitute their building blocks, then such scenarios as above, revealing certain universal psychological micro-phenomena, should be treated as instructive for the understanding of OR stability.

Certainly, there are several problems with this approach; one that appears essential will be indicated below. Namely, it can be thought that the automaticity of habits can only explain the stability of *only a certain type of ORs*, that is such actions that look automatic rather than being the result of conscious decisions and deliberation. Such a view on microfoundations would definitely narrow down the issue and study of ORs. To avoid this narrowing, some researchers who take seriously the view that habits are building blocks for ORs point out that there are various types of habits, not just psychological ones. In short: there are habits that are more and less “saturated” with reflection, depending on the variability of the environment (Turner & Cacciatori, 2016). This seems to be a correct view<sup>9</sup>. However, this approach can be defended without treating a “habit” as an all-encompassing notion and without giving up the microfoundations programme, which consistently resorts to cognitive psychology knowledge. Namely, the point is a change of the understanding of the most problematic issue, which is the automaticity of habits. This change requires emphasising their close relationship with reflection in the sphere of practice. Without reflection, a purely habitual practice would generate chronic errors. Meanwhile, despite the ubiquity of habits in everyday life, we avoid many of these errors because we can consciously correct habitual behaviours. It is also worth remembering that some habits are triggered consciously and intentionally (e.g. diet or exercise). These both mean that a sharp demarcation between habits and conscious goals and reflective practice in general seems to be an example of unjustified “black and white” categorisation. More recent approaches to habits, therefore, do not avoid indicating the relationship between habits and deliberation and propose models where these two arrangements clearly intertwine (Wood & Rüniger, 2016). For the organisational theory, this view seems promising as it does not force supporters of the thesis about the fundamental role of habits for ORs to win sociology against psychology (and thus actually to criticise the idea of microfoundations on unjustified grounds). The microfoundations research programme is not blighted by the fact that ORs may be reflective. It is also noteworthy that systematic development of such an approach would make microfoundations of OR stability rather similar to microfoundations of OR change. Why?

#### **b. Microfoundations of OR Change**

Intuitively, what makes a change or review of standardised routines possible is conscious decisions that appropriately address the challenges stemming from the organisation’s environment and internal processes. An OR change requires reflection and because there are no routines that would not require change sooner or later, ORs – despite their automaticity – must

also be a case of reflective practice. What actually enables this change at the level of psychological microfoundations? The decision-making literature has followed a well-established cognitive-behavioural tradition for several decades (Gigerenzer & Goldstein, 1996; Kahneman, 2003; Maule, 1985). This approach, in conjunction with the classical theory of rational decision-making, can certainly be applied to study the foundations of OR changeability if the latter are understood as behavioural structures that result, to some extent, from the implementation of (e.g. managerial) decisions. The planning theory (Bratman, 1987) and the theory of implementation intention (Gollwitzer) also play a similar role. All these theories say something interesting about the conditions and criteria for a revision of decisions already made or the deliberation standards for them. A further perspective, however, exists that seems not to have been noticed whatsoever in the context of ORs but is extremely significant in the context of habit stability. This perspective is related to research into psychological flexibility.

The notion of psychological flexibility, known rather from popular science literature, has been studied in cognitive and social psychology under many names and in many different contexts, yet only recently has it gained a somewhat broader systematic interest in psychology (Kashdan & Rottenberg, 2010) or philosophy of action (Makowski, 2016). It also appears in management sciences (Atkins & Parker, 2012; Bond, Lloyd, Flaxman, & Archer, 2015), but it has not been hitherto explicitly addressed in the context of ORs or microfoundations. It seems, however, that incorporating and discussing this issue in the explanation of micro-causes of OR change, and in the microfoundations research project in general, can offer an interesting answer to the question of how actors with bounded resources who routinise their actions can change such routines, often without an actual loss of their efficiency.

Psychological flexibility may be generally construed as the individual ability to adapt to the changing needs of the operating environment. With this ability, actors have a certain individually defined spectrum of adaptation to practical challenges. This adaptation can take various forms: perceptive-cognitive, affective-emotional or motor. This adaptive flexibility is a significant psychological trait. On the one hand, it makes it possible to understand why actions potentially at risk of inertia (and resulting errors) nevertheless maintain appropriate dynamics. On the other hand, it reveals that actors who (according to the model of agents with bounded resources) should act by minimising efforts are willing to invest more in some situations if this produces desired effects. Paradoxically, thanks to psychological flexibility, actions that require costly efforts are not something that abolishes the mechanism underlying the automation and economisation of action (Makowski, 2017).

Arguments in favour of this psychological trait include, for example, an experiment in which actors play the roles of a landlord and a tenant

who did not pay the rent (Tamir, Mitchell, & Gross, 2008). In the first scenario, the tenant must quickly pay the amount due; in the second one, the outstanding rent may be paid later, after agreeing the terms. The first scenario required “landlords” to adopt a strong, confrontational attitude, the second – a settlement-oriented one focused on dialogue. In both scenarios, “landlords” engaged in additional actions to achieve the desired goal. In the first one, they strove to strengthen their firmness and anger (e.g. by listening to aggressive music), while in the second scenario, they reinforced their positive attitude. The strengthening of negative emotions (anger) in the first scenario resulted in greater effectiveness in achieving the intended goal than the maintenance of positive emotions. This result seems to contradict fairly common intuitions about the harmfulness of negative emotions. It turns out that actors are willing to bear more (psychological, emotional) costs if this guarantees the attainment of specific goals. Efficiency challenges and requirements are thus the area where flexibility is the desired trait in action.

Flexibility is based on three pillars: executive functioning, default mental states, and personality configurations (Kashdan & Rottenberg, 2010). The first one allows specific cognitive or emotional resources to be rapidly “shifted”, generally implying a change of attitude. The reconfiguration of mental resources enables the definition of priorities and investment in a given context, thereby allowing greater executive versatility. For example, it permits reflection to be activated in a situation that was, by standard, managed habitually. Default mental states (the second pillar), particularly important for habitual behaviours, also have a role to play as a vehicle for psychological flexibility. Without automation and default thinking and action patterns, flexibility could not be formed. They also prevent excessive flexibility by stabilising the individual psychology of actors. Personality configurations, the third pillar of flexibility, include those psychological traits that allow for openness to new information, cognitive-affective contexts and make it possible to cope with them. Naturally, each of these pillars has its own degrees – flexibility is not a rigid trait and can occur with various intensities (from extreme flexibility to extreme rigidity) due to environmental factors. Moreover, owing to individual differences, the possibilities of psychological flexibility are defined for each actor individually. For instance, in a very unstable environment, the actions of a team of managers with low psychological flexibility will have a different impact on ORs that they are supposed to change than the actions of team members who are highly flexible. Thus, psychological flexibility has a significant role to play in the context of routine changes.

One of the key issues that can be expounded by considering the thesis that an OR change at the micro level is anchored in psychological flexibility is, for example, the problem of certain ORs appearing as “effortful accomplishments” although, according to classic approaches, they should

rely on automation (i.e. minimise resources). Observations of psychological flexibility reveal that increased efforts do not go beyond the psychological norm of executive functioning as long as such efforts allow the set goals to be achieved. As already emphasised here, the location of psychological flexibility in the context of habits also explains the link between the latter and reflection in relation to executive functioning.

Thus, the observation of how psychological flexibility manifests itself at the organisational level, at the level of interactions among individual actors (both managers and employees) would contribute to a more complete understanding of the key dimensions of OR dynamics that were studied with mainly sociological inspirations (Bucher & Langley, 2016; Feldman & Pentland, 2003; Feldman et al., 2016; Pentland et al., 2011). Firstly, research should be done into what micro-determines planned and reflective OR changes (in this respect, e.g. lesser or greater psychological flexibility of managers can be a key factor enabling or blocking an OR change). Secondly, OR stability can be expounded in a situation where changes in mechanisms routinising (automating) organisational actions are enforced by the external environment, with no possibility of reflective planning. Thirdly, psychological flexibility can also help identify the reasons for the inability to form specific ORs (e.g. due to significant fluctuations of the organisational environment).

### **c. Microfoundations of OR Emergence**

The highlighted issue of the emergence of routines is a relatively new topic in the literature (Bapuji, Hora, & Saeed, 2012; Feldman et al., 2016; Howard-Grenville, Rerup, Langley, & Tsoukas, 2016; Raff & Scranton, 2016; Witt, 2011). There are, however, some interesting findings in this respect. Routines either emerge through the repetition of some interactions among actors or are designed (programmed) by managers. Naturally, we assume that both types of OR formation have their psychological microfoundations that are interesting at the organisational level. An attempt to explain the first type of OR emergence can be made by referring to the “building block” view, i.e. to the idea that routines emerge from a certain type of collectively structured habits. The reasoning here relies on the analogy between routines and habits that has already attracted the attention of the classics of organisational theory (Nelson & Winter, 1982). Thus, like habits of individual actors appear spontaneously through appropriate repetition of behavioural responses to certain stimuli, so do ORs at the group level. Of course, this intuition needs to be elaborated on primarily due to the collective dimension of ORs that routinises actions of a previously different specificity (e.g. planned and cooperative) and requires that individual habits do not conflict with each other (Becker, 2004).

However, it seems that the vast majority of ORs are driven by the presence and role of managerial practice. In this respect, ORs appear to

be a kind of substitute and extension of deliberately designed directives of the management group, with such substitute or extension being necessary insofar as it saves the management's resources (attention, physical input, time, etc.) (Witt, 2011)<sup>10</sup>. This variant of OR emergence is obviously more complex. This is because of both multiple ways of transmitting managerial directives (related to possible conflicts or misunderstandings) and the presence of *qua* artifacts of organisational actants (especially IT systems or sets of directives, so-called scripts or programmes) (Gao, Deng, & Bai, 2014). These artifacts can be a kind of routinisation "catalyst" if they effectively improve, standardise and automate the actions of actors. They can also work exactly in the opposite direction. Nonetheless, this complexity concerns, to a much greater extent, the psychology of actors at the managerial and employee level. These issues are already a subject of simulations using the game theory apparatus (Gao et al., 2014). As it seems, similarly to the microfoundational strategy for OR change and the role of rationalist models, the game theory does not exhaust all relevant issues at the micro level and with the use of a bottom-up perspective.

Namely, the psychological profile of directors and employees may – assuming the relative neutrality of factors related to the organisational environment – either favour the automation of organisational actions or inhibit, or even prevent, such automation. This is, among others, why the selection of certain psychological traits of candidates for a given position is vital in recruitment practice. So what psychological profile of actors is conducive to OR emergence? It seems that, apart from a trivial indication of the actually *contextual* dimension of this issue (in an environment with varying stability, various psychological traits matter), one may attempt to apply the mentioned strategies used to explain OR stability and change. Generalisations that underlie individual habitual behaviours and psychological flexibility allow OR emergence to be explained and predicted in certain circumstances. An inspiration may be provided, for instance, by a study of Top Management Teams (TMT). In a highly variable organisational environment, a given TMT composition will be rather heterogeneous, encompassing people with high psychological flexibility. In a stable environment, on the contrary, it will promote attitudes that do not require flexibility from members (cf. Pitcher & Smith, 2001).

Since the microfoundations project has entered the phase of empirical research, it can be suspected that it is only a matter of time when these issues, by definition concerning individuals, can be explored explicitly at the organisational level.

#### **d. Microfoundations of OR Reflectivity**

The problems discussed above allow for several observations on the issue that is somewhat crucial for the debate about routines and seems to have been ignored under the latest synthetic approaches to research into

OR microfoundations (Felin et al., 2015). The dispute about whether ORs are automatic or reflective appears to be still valid as despite the offensive of supporters of “effortful accomplishment” or mindfulness (Levinthal & Rerup, 2006; Turner & Cacciatori, 2016), there are still approaches that consider ORs to be automatic (Gao et al., 2014). As I suggested at the outset, the dispute seems to be largely based on a misunderstanding. The essence of this misunderstanding can, to some extent, be explained by the *heterogeneous nature* of ORs. Nonetheless, given that an OR researcher first has to face the *heterogeneity of OR literature*, the study of the nature of ORs in terms of their reflectivity primarily encounters methodological difficulties. According to the strategy adopted in this paper, the discussed problem can, however, be expounded from the perspective of microfoundations. When discussing stability and change, two issues were identified:

- *a shift of emphasis in the understanding of automaticity*: automatic and reflective practices are closely related and there is no routinisation without realising the need for OR control and optimisation on the part of reflective practice (thinking, deliberation, conscious decision-making and decision-changing, and planning); potentially “mindless” habits and reflective behaviours filter in and condition each other,
- *psychological flexibility as a determinant of reflective or automatic action*: from a microfoundational perspective, whether a given (reflective or automatic) mode of organising and coordinating specific organisational behaviours appears to be dominant may be largely a matter of psychological flexibility (or lack thereof) of individual actors as part of these behaviours.

It could, therefore, be claimed that the tendency to clearly dichotomise two systems for information processing, thinking and action (the aforementioned Kahneman’s Systems 1 and 2 (Kahneman, 2011)), in certain organisational contexts (ORs in this case), rather obscures psychological conditions that allow triggering one of these two systems. These conditions reveal their increased interdependence. Although routinisation of organisational behaviours cannot be understood without introducing the concept of automaticity, ORs cannot maintain their full dynamics and efficiency without deliberation and reflection. Revealing the interpenetration of these two systems, a psychologically oriented programme for studying microfoundations also has thus a potential in the theory of mind and “models of man” (Felin & Foss, 2011; Simon, 1962) precisely because of the emphasis on individual issues in the organisational context.

## 5. Conclusion

The microfoundations research project has not been welcomed everywhere but the underpinnings of criticism (Hodgson, 2012; Hodgson & Knudsen, 2011; Pentland, 2011; Winter, 2011) have not proved strong enough for

this programme to be abandoned. It is currently believed that it has entered the phase of theory building (Foss, 2016). In this text, after adopting the context of the specifics of organisational routines as a starting point, an attempt was made to explore selected issues that should be included in this theory. An approach was proposed that essentially concerns the impact of individual actors' psychology on organisational routines and that historically refers to the tradition of behavioural research (Cyert & March, 1963; March & Simon, 1958) and the model of bounded rationality<sup>11</sup>. The benefits of continuing this tradition are numerous and the project of psychological microfoundations research offers an opportunity to refresh and deepen it in an interesting way. There are already some significant findings in this respect (Cohen, 2012). An attempt was made here to expand the theoretical spectrum of explanatory possibilities of this project, focusing on issues that so far either have been insufficiently addressed (psychology of habits) or have been a source of misunderstandings (reflectivity-automaticity dispute) or not taken into account at all (psychological flexibility). The discussed research perspectives are chiefly conceptual, yet allow for certain desiderata to be indicated in empirical research. A broader confirmation of empirical observations from the micro level of individual actors at the organisational level is still a postulate, but the fact that some empirical research into microfoundations is already being undertaken in the area of ORs (Bapuji et al., 2012) testifies to considerable possibilities of this programme also at the experimental level.

The examination of microfoundations of routines, apart from its contribution to management sciences, also matters for the philosophy of action. The similarity between the characteristics of psychologically understood habits and ORs allows a new look at automatic actions. Recognising that the tendency to clearly dichotomise automatic and reflective processes loses its sense in the context of the theory of routines, we leave the door open to new approaches to automaticity. Automatic behaviours do not have to be understood as free from control by conscious thought. If we agree that these routines that require a clear reflection are still somewhat automatic, then the whole category of so-called automatic actions should appear as manifestly heterogeneous. Thus, it includes both unreflective motor skills (such as the actions of top sportsmen (Brownstein, 2014)) and acts that require advanced deliberation (e.g. routines designed by managers within a particular time period of the organisation's life). It can, therefore, be concluded that philosophy not only inspires some research in the field of cognitive psychology and management sciences but also – thanks to the cooperation between them – gains new areas for philosophical analysis.



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### Endnotes

- <sup>1</sup> Microfoundations or micro-level origins (Cohen, 2012; Felin, Foss, Heimeriks, & Madsen, 2012). It should be noted that research on microfoundations under the organisational theory should not be confused with microeconomics. The micro/macro distinction has its analogies in both cases, yet they are too distant for microeconomic associations to serve as a clue in explaining the microfoundations of routines.
- <sup>2</sup> It is noteworthy that the classic character of that text for OR research in the very context of highly metaphorical and imprecise wordings or comparisons abundant in that article makes it necessary to think about the standards of certain approaches considered acceptable in the organisational theory. This is, however, a topic for a separate discussion.
- <sup>3</sup> Cf. Felin et al., 2012; Felin et al., 2015.
- <sup>4</sup> See e.g. special edition of *Journal of Management Studies*, 49(8), in particular the introductory article (Felin et al., 2012).
- <sup>5</sup> This does not automatically mean that the explanation of all organisational phenomena, offered by microfoundations, is generally better (more reliable or useful) than macro-macro explanations. This statement is primarily intended to show that the perspective of microfoundations should not be ignored for purely cognitive reasons.
- <sup>6</sup> At the micro level, in addition to the level of individuals, other issues such as structure or processes are also of interest (Felin et al., 2012).
- <sup>7</sup> Cf. Felin et al., 2012.
- <sup>8</sup> Felin et al. (2015), in the note concerning the questions “what does it mean to ‘explain routines’, exactly?”, also pay attention to these three basic questions, yet they do not address automaticity/reflectivity, which is important (not only genetically) for the debate about the nature of routines.
- <sup>9</sup> Those authors support this view with their typology of habits that is the effect of how habits are understood in literature. This literature is highly heterogeneous, which means that the typology itself seems somewhat doubtful. For those authors, the *heterogeneity of literature* is an argument for the *heterogeneity of habits*. An explanation of why this view is unconvincing and requires correction can be found in Makowski, 2018.
- <sup>10</sup> Therefore, we deal here with another issue related to the resource-boundedness model, as in the case of the stability of OR change.
- <sup>11</sup> Felin and Foss (2011) strongly emphasise the rationalist underpinnings of the microfoundations project. Nonetheless, there is no need to completely exclude rational decision-making or planning from behavioural inspirations and the model of bounded rationality. The theoretical and action-related aspects of this view are proposed in Makowski, 2017.

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