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### **The Role of Habitual Behavior in Social Ontology**

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Social ontology is a recent discipline that has origins in the philosophical tradition. We elucidate the importance of the dimensions of habitual behavior to face the (1) problem of the reduction of complexity in the social life and (2) the ground of cooperation in social practices and their rituals. The question of cooperation is central in the debate on We-intentionality or Collective Intentionality. The problem is how to grasp the relationship between individuals and collectives. We'll briefly introduce the debate and the theoretical aspects of this complex issue. Moreover, we suggest to investigate habitual behavior that represents a fundamental part of the nature of human beings in both individual and social contexts.

## COMPLEXITY

The notion of “complexity” is a central topic in the philosophy of science and in sociology, that aims to grasp the relationship between systems and their environment. Complexity indicates also the possibility to describe unity (system, environment, world etc.) by appealing to the distinction among elements and their relations. This possibility has been used in many different ways and has assumed a wide variety of nuances throughout history [Luhmann, N.: *Complessità sociale*. Enciclopedia delle Scienze Sociali, online, 1992].

In medieval cosmology the notion of complexity indicated all that could be thought as composed; it presupposed the antithetical concept of single in the sense of “element” or “individual”. God has been conceived by the schema Complex/single as simple unity and the problem of unity of what is complex was faced as problem of God’s always actual origin (*principium*) as showed by Nicola Cusano work. What could be thought as composed should be conceived also as decomposable, and, therefore, as susceptible to be destroyed (as for example political unities like cities and emperors). Moreover, it was possible to distinguish between compositions necessary for the stability of the world and contingent compositions, as well as between conceptual decomposition and material division. This conceptual plant constituted the device for distinguishing the whole from its parts. A whole can be decomposed in smaller and smaller partial wholes until we reach simple elements, that are not decomposable and therefore indestructible. Indestructibility of elements, or of individuals, was the threshold starting from which the mundane order referred to a stably constituted nature or, in religious terms, to creation. Only religious powers, only God could arrange elements so that the world could be conceived as constituted by stable ultimate components that also delimited their variability until the end of time.

Transcendental philosophy conceived complexity as indeterminate, by interpreting it on a temporal level as open future, and on the material level, as infinite multiplicity of causal relations, and, on the social level, as the equal quality of subject that is proper of all human beings. The single has been reduced to a negative concept. Even though rationally necessary, the articulation of the indeterminate complexity according to the schema temporal/material/social determines the basis of its reduction without indicating this processes inside the very schema. In this sense, the start point is given by the limitation of the concept of individuality to human beings and of the concept of subject to consciousness that is determinable through its self-reflection. Subjects are deprived of both their natural determination and the protection offered by religion so that they are directed toward the research of a common disposition. This result entails, from a semantic point of view, to renounce to the soul immortality based on its indestructibility in favor of a subjectivist philosophy, in which the concept of complexity does not have any relevance, because it has been substituted by an analysis of self-reference. Natural sciences develop toward infinite possibilities of decomposition of their ultimate elements with the consequence that we must abandon the representation of a perfect world that is replaced by the idea of a historically contingent factuality produced by the evolution and liable of destruction. In this context, it is important to stress that the construction of complexity always happens in a selective manner, namely it is related to structures that have selective functions and give rise to “emergent properties”.

We consider a peculiar aspect in the large debate on complexity, namely a notion of complexity that is constituted by human habitual behavior to shape individual and social daily life. This analysis is far from using functionalism namely the analysis of individual and social systems. Rather, it aims at describing important traits of human selection of relevant information by considering the function of habitual behavior in individual and social contexts.

An important problem regarding the researches on complexity in sociology is the determination of its presupposed elementary unit. In the scientific discussion of the 60' and 70' years the concept of complexity has been mostly used in technical and planning contexts. But, also in this case, complexity was very difficult to grasp in its internal dynamic. The problem of complexity blows up the possibilities to investigate microsystems as well as those based on statistical data. These difficulties made possible the growing of alternative philosophical views like hermeneutics, in which complexity is strictly related to the notion of "sense" and its determinate selectivity (Luhmann).

By following the phenomenological analysis introduced by Husserl, sense could be intended as a series of referrals that start from a nucleus constituted by the actuality of the intentional experience (*Erleben*) and brings to unreachable horizons, so that every experience must select what sense is intended afterwards. Also hermeneutics discovered recursive intertwinings in the content of the text that mediate between it and the interpreter. But the difference between this thematization of the necessity of selection and that transmitted by the concept of complexity is showed by the fact that the theory of sense moves from actuality and possibility, where the theory of complexity is based on the distinction between elements and relations.

With the recent developments of the theory of system, on the one side, and hermeneutics on the other side, this difference is relativized if not totally canceled. We can plausibly claim that the theory of sense is a peculiar version of the problem of complexity, a view evolutively late and successful. In the evolution we observe the development of systems operating on the base of sense, that acknowledge themselves and the world through the medium "sense" and are therefore forced to perform their operations in a selective manner, starting from the time to time actual temporality. We observe the growing of particular forms of sense capable of connecting open possibilities, to make sense comprehensible and to allow a sufficiently rapid learning process. In these systems we must define in a circular way the concept of sense by only using linguistic practices.

A promising philosophical view is the theory of communicative action introduced by Jürgen Habermas and complexity that presuppose each other. Like Luhmann, Habermas considers the notion of sense as primitive compared to the classical notion of “subject”. A theory of constitution of the social world and the related problem of reduction of complexity, that moves from the notion of action, must take into account three fundamental theoretical options. In the volume *Theory of Communicative Action* Habermas introduces three theoretical meta theoretical options. Why metatheoretical? Because he intends to use several ideas from the contemporary philosophy of language to ground sociological accounts. The first option concerns the notion of “sense”, that is intended as the meaning of a word or a sentence. It does not exist anything as a pure or precategorical intention of the speaker; sense has always a symbolic expression, namely intentions must always assume a symbolic form to achieve clarity and to be expressed.

The second concerns the form of intentional action as a fundamental concept of the theory and, in particular, if it must be oriented toward a certain scope or toward agreement. Habermas finds the grounds of the constitution of social world and its order in the notion of “communicative action”. Communicative action is a symbolically mediated interaction that entails norms that define reciprocal expectations of behavior and must be comprehended and acknowledged by at least two agents. Whereas the effectiveness of technical rules and strategies empirically depends on the validity of true assertions or analytically from the validity of right assertions, the validity of social norms is secured by an intersubjective recognition based on agreement.

The third option isolates the ultimate constituents of the social world that are not the individuals who act according to their inclinations and plans, but agents who act in a communicative sense to pragmatically constitute the communality of sense, that is intersubjectively shared as linguistic construction of sentences used in speech acts for cognition and action. This model of constitution of the social world through the use of ordinary language in conversation and interaction is exemplified by the work of the late Wittgenstein and George Herbert Mead.

We can consider social action in its communicative form as the basic notion to elucidate the constitution of the social world. Beside this communicative form that characterizes interaction in everyday life, Habermas considers “extra-ordinary communication” exemplified by rituals that represent an important source of sense for human life. Extra-ordinary communication, Habermas analyzes in *Nachmetaphysisches Denken II*, is represented by religious rituals that reveal the human fundamental relationship with the divine. According to Habermas, we can intend the rite as the expression of that phylogenetic passage from the biological behavior of human species to symbolic mediated rituals.

The sacred complex is made of mythical histories and ritualistic practices, that show themselves in different places, times and forms. Mythical stories can help to clarify the meaning of ritual practices, because they transfer the semantic contents of an ancient gestural communication into a more evolved grammatical language. Habermas talks about an overlapping of more evolved communicative forms on archaic ones. But every form of ritualistic expression always presents an artistic aspect involved in the use of objects and performances to relay to extra-ordinary dimensions. So, if we imagine the funeral rite that tries to elaborate the experience of human precariousness and the suffering for the lost of our loved, we observe the growing of narrations and rites that call on otherworldly powers. The syndrome of myth and rite provides stability and certainty to collective identity that must be protected against what is extraneous and unknown. The performative aspect of the myth does not only explain the existence of things in the world, but reflects the psychic dynamic provoked by threats and dangers, by constituting a bridge between myth and rite.

The rite is a dimension of human behavior that is not necessarily bound to the myth and reveals the original sense of the sacred complex. According to Habermas, the social function of rituals is plausibly clarified by Durkheim, Henri Hubert and Marcel Mauss who investigated the rites of gift and exchange. Moving from the studies of Durkheim, Arnold van Gennep analyzed the initiation rites that regulate the passage from a status to another across birth, puberty, marriage and funeral that entail dimensions of the self-thematization of society and the creation of normative obligations.

For example, when a teenager is allowed to join the adult males community, he learns the social roles that belong to the new status. By absolving certain ritualistic prescriptions, he enters, so to say, in a new segment of the society by acquiring the capacities to obey to the corresponding expectancies. The initiation has the scope to anticipate the risk that, in the passages from a status to another, the continuity of social integration breaks and the forces of normative bonds are paralyzed. The initiation implies a profound change in individual identity; it is like a staging of death and rebirth.

Following Wilhem Duprè, Habermas intends the rite as an original form of self-reflection in primitive communities, because the sacred dimension ought to represent the existential bases of the new forms of life, socialized through symbols and every form of representation shows the role of art in different forms (R. Giovagnoli, Habermas on Rituals and the Role of Art, *Roczniki Kulturoznawcze*, 4, 2022). Rituals reflect events and situations like birth and death, uncertain communitarian life, depletion of material and organic resources, vulnerability of body and soul. The sacral complex derives from the way in which primates solved the problem to pass a fundamental evolutionary threshold represented by symbolic communication. We can observe two forms of communication at a primitive stage: the ordinary language of gestures and the extra-ordinary language of rites aiming at invoking otherworldly powers.

A very important observation suggests that there is a division of labor between so different forms of communication: ordinary language rises from relationships of cooperation, while ritual behavior falls out of ordinary functions. Exactly those anthropological studies help Habermas to formulate the hypothesis according to which the rite would be a response to the precariousness of the *new* form of communicative socialization going through linguistic symbols. Rites reveal the difficult cooperation between individuals and society, where the collective must succeed to establish social order, but the individual consciousness cannot lose her autonomy that develops through interaction. Rituals possess a stronger normative dimension than normativity of linguistic conventions, as they have to do with the regeneration of social solidarity and with the self-thematization of collective identity.

These observations on Habermas' latest thought about the function of rituals suggest to consider them as related not only to religious practice. They are present in social practices in general and are an expression of habitual behavior in social contexts. Our aim is to introduce a plausible notion of habitual behavior as a crucial notion to explain the reduction of complexity in individual and social daily life strictly related to a notion of sense regulated by habits.

## **COLLECTIVE INTENTIONALITY**

Intentionality is the propriety of the human mind to be directed at object of affairs, goals and values. Collective Intentionality (CI) can be interpreted likewise and corresponds to that propriety of the human mind to be "jointly" directed at objects, states of affairs, goals and values. There are some important modes in which CI appears in everyday life: shared intention, joint attention, shared beliefs, collective acceptance, collective emotion. These topics are at the center of several cross-disciplinary researches. CI is the key-notion to understand the nature and the structure of social reality and the very modalities that occur in human construction of the social world. Even though we can trace back accounts of social interactions, practices, social consciousness in the philosophical tradition, CI in the contemporary debate focuses on the conceptual and psychological features of joint or shared actions and attitudes i.e. actions and attitudes of groups or collectives, their relations to individual actions and attitudes, and their implications for the nature of social groups and their functioning. It addresses to the study of collective action, responsibility, reasoning, thought, intention, emotion, phenomenology, decision-making, knowledge, trust, rationality, cooperation, competition, and related issues, as well as their role in social practices, organizations, conventions, institutions, and ontology

We introduce the so-called "central problem". If I want to go to the cinema to see "The Wolf of Wall Street" tomorrow and you want to go to the cinema to see "The Wolf of Wall Street" tomorrow, does it mean that we have a collective intention? No, to have a collective intention does not mean to summate individual intentions.



CI is irreducible to individual intentionality, and by virtue of this irreducibility CI can be attributed to participants *as a group*. Obviously, the fact that shared intentions are possessed by a group does not block attribution of the intentionality in question to the individuals. So, for instance, to say that a group intends to go for a walk is *the same as* saying that the participating individuals intend to go for a walk.

Some philosophers criticize the Irreducibility Thesis and propose the Individual Ownership Thesis, namely the basic claim that each individual has a mind of her own and has a sort of intentional autonomy that is incompatible with the view that individual minds are somehow fused when intentional states are shared. Consequently, the central question in the field of CI is a plausible consideration of the ontology of individual agents and their psychological states and interactions. There are ontological (do group agents exist?), conceptual (how do we consider social concepts?) and psychological (how do we understand collective mentalstates?) dimensions that characterize the field of CI. These questions are relevant to the traditional debate between methodological individualism and collectivism in the social sciences. We'll consider the role of habits in human individual and social ordinary life and we move from the fact that habitual behavior is fundamental to organize our activities in individual as well as in social contexts. Instead of considering classical and revised version of intentionality, we prefer to focus on habits that reduce the complexity of daily life, and also on their corresponding activity in social life where we take part to informal joint practices as well as to institutionalized ones. We cooperate to create and to participate in social practices because we need to organize our life together with other people to create common spaces that have different functions and significance depending on the corresponding practice (for example, we all pay the ticket to take a train or we participate in religious rituals

## **DIMENSIONS OF HABITUAL BEHAVIOR**

Habits can traditionally be intended as *habitus*. Thomas Aquinas inherits the Aristotelian vision of habit that has a "qualitative" element (evaluation) in action. Dewey considers the habit as a human asset acquired in the socialization process, that includes a certain order and creative elements of behavior. It is a mechanical dynamics continuously operating in our daily actions.

Habits acquired also the meaning of *consuetudo*. Aristotle conceived the habit as a kind of mechanism that is analogous to natural mechanisms and somehow guarantees the uniform repetition of facts, acts or behavior by eliminating or reducing stress and fatigue and then making them pleasant. The habit as a repetition without reasoning is exemplarily discussed by Pascal and Hume. Bergson uses this term to describe the moral obligations as social habits that promote life and the social order. Metaphysical interpretations of the notion of habit are offered by Main de Biran, Hegel and Ravaisson. In these cases we observe a peculiar interest in religious views. According to Hegel, the habit is fundamental for the existence of the spirituality of the individual subject; the subject can exist as a concrete subject and as soul, namely the religious content can belong to himself (with his own soul). The metaphysical perspective of Ravaisson considers the habit as a law of grace because nature reveals itself in spiritual activity. We therefore observe a natural shift from habits to rituals that can be considered as "social habits".

Habits have a very important function in individual life because they reduce the complexity of daily life; they make our daily life easier and pleasant. We choose habits concerning the satisfaction of our basic natural needs. Depending from natural and social environment, we develop different habits which organize the way to satisfy our needs and desires. We have habits in the I-mode; for instance, we practice meditation at dawn or sunset Or we prepare a cake on Silvester to bring luck for the new year. We have habits in the We-mode: a pleasant dinner with friends,; breeder needs cooperation before a dog exposition.

It is crucial to grasp a plausible notion of habitual behavior that can ground human reduction of complexity in ordinary practices. First, we must overcome the so-called “Received View” . (Douskos, C., *Deliberation and Automaticity in Habitual Acts. Ethics in Progress*, vol. 1, n. 1, 5-20 2017). According to exponents of this view, the only notion that explains the mechanism of habit is *automaticity*. In Gardner’s words (Gardner, B.: *Habit as automaticity, not frequency. European Health Psychologist*, 14, 32, 2012):

A psychological operationalisation of habit has emerged, which incorporates an explanatory mechanism: habits are actions that are frequently performed because they are initiated automatically.

Automaticity is a dimension of habitual behavior, but the received View fails to consider the various ways in which an habit can explain an act as an act can be a manifestation of a habit even when it rises from conscious thought and deliberation. Let’s consider the following example [Douskos, p. 17]):

Suppose that John plays tennis on Sunday afternoons; he has been doing that for years. His habit is firmly entrenched in life, so he does not usually pause to deliberate. When the afternoon arrives, he just heads for the tennis club. But, this Sunday evening John has been invited to a friend’s birthday party. So John pauses to deliberate about what to do, weighting the pros. and cons. John finally decides (forms an intention) to go and play tennis, and acts on that intention; he plays a game of tennis this Sunday evening as he usually does. Our question is whether John’s habit still plays a role in the explanation of his act. The answer to this question is affirmative. What goes on in the example above is that habit *proposes* or *suggests* - so to speak - the default course of action, or activates the relevant mental representation, but in view of the alternative course of action presented by the invitation, John has to make a choice between these two options. However, habit still plays a role, precisely because it *constrains the options considered in deliberation*. John did not consider all the other things he could do on that sunny Sunday evening. He likes going to the pub, or to visit the local museums, and so on. His habit prevents him from considering all the other good alternatives.

Along this line, Bernacer and Murillo underscore important results of a deep study on the Aristotelian notion of habit in the *Nicomachean Ethics*. An acquired habit is an acquired disposition to perform certain types of actions; this disposition, usually acquired by means of repetition of one or more actions, makes the execution of these actions prompter, more spontaneous and autonomous from continuous supervision, all of which generally leads to a better performance. If the habit increases cognitive control of actions, it can be termed a *habit-as-learning*; on the contrary, if it increases their rigidity, it is a *habit-as-routine*. Good habits are those enhancing the agent's control over actions. There is a relation between habits and emotions. The habits-as-learning entail control and for this reason they are fundamental to reach personal goals. Habits-as-learning give control over actions, while habits-as-routines don't. According to this view, that crosses philosophy and neurobiology, the habit is a "stable disposition for self-development" (Lombo, J., Gimenez-Amaya, J., The unity and stability of human behavior: an interdisciplinary approach to habits between philosophy and neuroscience. *Front. Hum. Neurosci.* 31, 359-397, 2008).

This is the process that favors the agent's pleasure and happiness (Bernacer, J., Murillo, J.I.: The Aristotelian conception of habit and its contribution to human neuroscience. *Front. Hum. Neurosci.* 3, 8, 883, 2014). We can also refer to recent studies from cognitive neuroscience, biology and psychology that show converging perspectives on the organization of goal-directed, intentional action in terms of (brain, computational) structures and mechanisms. Several cognitive capabilities across the individual and social domains, including action planning and execution, understanding others' intentions, cooperation and imitation are essentially goal-directed /Lowe, R.: Habit-Based and Goal-Directed Systems: Knowledge Transfer in Individual and Social Learning. In: Giovagnoli, R, Lowe, R. (eds.), *The Logic of Social Practices*, Springer, Cham, 153-168, 2020).

Goals can (a) direct habits by motivating repetition that leads to habit formation and by promoting exposure to cues that trigger habits, (b) be inferred from habits, and (c) interact with habits in ways that preserve the learned associations (Wood, W.: The Role of Habits in self-control. In: Vohs, K., Baumeister, R. (eds.) Handbook of Self-regulation, p. 104, Guilford, New York , 2016).

Wood and Neal presented a fruitful model based on three principles (Wood W. , Neal D. T.: A New Look at Habits and the Habit-Goal Interface. Psych. Rev., 114, 856, 2007). According to Principle 1, habits are a form of slowly accrued automaticity involving the direct association between a context and a response. The context can activate the response without the mediated involvement of a goal (Principle 2) and habit development and performance interface with the purposive dimension of mental life as represented in people's goals (Principle 3). Empirical results support this model where slowly accrued context-response associations, once established, guide performance repetition without depending on people's current goals (Ouellette J.A., Wood W.: Habit and intervention in everyday life. The multiple process by which past behaviors predicts future behavior. Psych. Bull., 124, 54-74, 1998).

Regarding Principle 3, the interface with goals takes particular forms that are constrained by the slowly accruing nature of context-response associations. The idea of people forming habits when they repeatedly pursue a particular means to a goal in a given context is consistent with the typical correlation of habits and goals, namely habits continue to serve people's goals. Moreover, people can, through goal pursuit, place themselves in the contexts that cue habits. Another important result is that people can infer goals from their habitual behavior, and they plausibly use these post hoc inferences in self-regulatory processes to guide habit responding. Finally, goals and habits interact when both are present to guide performance, and in concert with habits, goals tend to be epiphenomena in guiding behavior. In case of conflict with habits, goals by themselves have limited capacity to break habits, except when alterations occur in the cues that trigger habits and when people successfully use self-control to inhibit habit performance and, when desired, to implement new, goal-consistent behaviors.

Psychological researches on habits suggest that automaticity is an important dimension of habitual behavior and there are also interesting studies on the relationship between daily practice and automaticity as in the case of the use of phone-app-based motor sequence (nota). The research ranges across four indicators: (a) reduced sequence completion times, (b) progressively less reliance on learning cues, (c) decreased variability in finger movements and (d) autonomy from the goal as assessed by extinction (removal of explicit reward feedback).

Habitual responding is however only one form of action control because it is demonstrated that stimulus-response habits integrate with other response systems such as goal-directed control. Instead of highlighting the conflict between habit performance and goal pursuit, we point out a collaborative relation (nota) that shows how habitual actions are activated by associated cues that directly trigger a motor response as well as action representation, which in turn retrieves the action outcome and its evaluation. This model considers responses as a function of the evaluative system's feedback signal in combination with the forward excitation from habit memory. Habits arise from processes that align in a hierarchical fashion from the aggregations of individual actions into unitary, "chunked" representations (Melnikoff D. E., Barth J. A., Wood W.: Editorial: On the Nature and Scope of Habits and Model-Free Control. *Front. In Psych.*, 21, 3, 2021).

A regular tea drinker, for instance, may combine the actions *put teabag in teapot*, *pour hot water into teapot*, and *pour tea into cup* into the single, unified action representation, *make tea*. Once the chunk is selected for performance, the elements within the chunk run off on auto-pilot, such that the execution of one action in the sequence (e.g. put teabag into teapot). In this setting, the actions within the chunk are habitual in the sense that they are triggered automatically by a stimulus (i.e., the preceding action and the current state of the environment - pot with bag but no water). At the same time, the actions within the chunk can be thought of as goal-driven in the limited sense that the chain of events leading up to their triggering was initiated by a goal to act.

This research brings an important contribution namely the use of reaction times to isolate the speedy activation of habitual responses as opposed to the slower valuation of goal-directed responding - a feature of habit that has broad implications for habit performance. Other interesting researches on the integration of habits and goal-directed actions challenge the common answer that a cognitive controller intervenes against a habit controller (namely the interventionist model). According to this view, people respond automatically out of habit as the expected value of the habitual response outweighs the intrinsic cost of exerting effortful control to select an alternative. The result could be that commonly ascribed features of habit, such as insensitivity to changes in outcome values, reflect not intrinsic habit features but instead the efficiency-driven cognitive system that controls action tendencies.

Other important researches (Melnikoff D. E., Barth J. A., Wood W. 2021) emphasize repeated learning of action value associations (Hackel, Morris e Cushman) namely they introduce the “model-free” account of habit, which derive from the computational reinforcement learning (Sutton, Barto, Daw, Dolan, Dayan among others). They consider cognitive systems using rewards and punishing to compute the long-run value of performing a given action in a given context; agents select actions on the basis of expected long-run value instead of current need, desires and of the causal structure of the environment (Wood, Neal). Model-free learning and habit result from prior active responding so they differ from passive association learning such as classical conditioning, but they differ under different aspects. For instance, model-free learners choose on the basis of cached representations of past reward values, whereas habitual learners respond to simple cue-response associations. However, it seems that model-free learning has many of the features of habits so that both processes contribute to behaviors commonly considered habitual (Patterson, Knowlton, Morris and Cashman).

Some researches challenge the classical account of habit by proposing to incorporate habit within a single action control system that is structured by the pursuit of goals *nota*. It is shown that people spontaneously learn action-outcome associations in two distinct phases of behavioral processing in instrumental learning tasks: action selection and action initiation (Sun).

Action-outcomes associations are established and it must be tested if the outcomes, when presented as primes, facilitate the actions with which they had been associated. Given that the testing happens in a forced-choice context, action-outcome links are assumed to support action selection over initiation. According to further studies, habit responding to a single system is incorporated in a goal-driven model so that all actions would be chosen on the basis of whether they meet the selection criteria formed by the actor's current goals. It is shown that with practice the responding to preference for certain actions becomes faster and easier. This basic principle would explain why behavior repetition promotes habit formation in the absence of a second system dedicated to habitual control (Hommel). Some studies on computation also argue that all habits start with a goal-based decision whether to allow habit automaticity to proceed (O'Reilly).

Researches on habit show the complexity of human behavior to reduce the complexity of our natural and social environment, namely when we decide to act in certain way. Promising results support a multiple systems view where some features of automaticity are naturally correlated and tend to occur together such as awareness and control (Melnikoff, Baugh, Amodio). Moreover, they recognize a certain kind of complexity in processing, that acknowledges goal-driven action (continued activation and operation until the goal is met) along with classical conditioning influences and more reflexive S-R types of responding.

Graybiel maintains that habits play an important role in social life; in this case they are "shaped" as mannerism and rituals (Graybiel, A.: Habits, rituals and the evaluative brain. *Annu. Rev. Neurosci.* 31, 359-387, 2008). We are social beings and we need to organize our activities also to participate in different social practices. From a social ontology perspective, rituals, as institutionalized sets of acts, have the important function to create social spaces in which individuals can share emotions, experiences, values, norms and knowledge. The function to share experiences is fulfilled when there exist a social space created by cooperation for reaching certain goals (Giovagnoli, R.: From Habits to We-Intentionality: Rituals as Social Habits. In: Giovagnoli, R., Lowe, R. (eds.), *The Logic of Social Practices*, Springer, Cham 185-199, 2020)



We create social habits also in the form of rituals by using the “status function”, which is a peculiar kind of function from which we constitute the social world (Searle, J.: *Making the Social World*. Oxford University Press, Oxford, 2010). The *constitutive rule* is essential to the process of constitution of institutions in general. The canonical form introduced by Searle is:

**Status Function = X counts as Y in C**

For instance, a certain expression counts as promise in a certain context C.

Assigning functions to objects or to some non-physical entities is a form of symbolization aiming at creating institutional reality (Magnani, L.: Ritual artifacts as symbolic habits. In: Giovagnoli, R., Dodig-Crnkovic, G. (eds), *Habits and Rituals*, Special Issue, *Open Info Sci*, De Gruyter, vol.2, 115-126, 2018). Naturally, if we follow the ritual to hug trees, the objects/trees remain what they are. Status Function apart, there are other two basic notions that occur in the explanation of a successful functioning and stability of social institutions that entail both automaticity and deliberation:

1. Cooperation as a “strong” form of We-intentionality implies our active participation in rituals
2. Collective Recognition as a “weak” form of We-intentionality implies to follow rules and acts typical of a ritual.

## CONCLUSION

We considered the notion of habitual behavior and its role to face “complexity” in the social world and to underscore the necessity to find a mechanism explaining its reduction in human daily life (See R. Giovagnoli, *Habitual Behavior: Reduction of Complexity in Human Daily Life*, in Giovagnoli & Love eds. *The Logic of Social Practices II*, Springer, Cham, 2023) Habermas’ theory of communicative action suggests to consider both ordinary and extra-ordinary communication as processes of reduction of the social world. The latter is exemplified by rituals that is a crucial source of sense in human life. Habermas intend rituals as an expression of extra-ordinary communication because it characterizes only religious contexts. But, rituals are social habits that find their ground in the dimensions of habitual behavior which can be of great importance to bridge the gap between I-intentionality and We-intentionality.

We introduced researches on habit that show the complexity of human behavior and proposed to consider habitual behavior a relevant notion to explain how human beings reduce the complexity of our natural and social environment, namely when we decide to act in certain way. Promising results support a multiple systems view where some features of automaticity are naturally correlated and tend to occur together such as awareness and control. In conclusion, we should recognize a certain kind of complexity in processing, that acknowledges goal-driven action (continued activation and operation until the goal is met) together with classical conditioning influences and more reflexive S-R types of responding. A plausible notion of habitual behavior could ground cooperation in a way that is compatible with the Serlean account by giving a simple explanation of collective recognition and active cooperation.

