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Received January 5<sup>th</sup>, 2014**Marek McGann**University of Limerick, Mary Immaculate College, Department of Psychology, South Circular Road, Limerick, Ireland  
marek.mcgann@mic.ul.ie**Situated Agency:  
The Normative Medium of Human Action\*****Abstract**

*In this paper the notion of individual agency is critically examined in light of the enactive approach to understanding the mind. It is argued that following the work of Hanne De Jaegher, Ezequiel Di Paolo, Tom Froese and others, agency must be considered in terms that are situational rather than bounded by biological individuals. Such a revised notion of agency presents substantive challenges to our current theory and research practices in this area. Drawing on the work of Harry Heft, Roger Barker and others some theoretical and methodological resources are advanced that may help to address these challenges. It is argued that the notion of 'behaviour settings' developed by Barker and his colleagues, and refined somewhat more recently by Heft, offers a coherent way of thinking in terms that address the systemic and holistic nature of situated agency.*

**Keywords**

agency, enaction, behaviour settings, situatedness, social interaction, sense-making

“The pursuance of future ends and the choice of means for their attainment are thus the mark and criteria of the presence of mentality in a phenomenon.” (James, 1950/1890)

**Introduction**

William James (1950/1890) argued that agency was the mark of the mental. Agency is an indicator that someone is home, that there is more going on than automatic or merely mechanical processes in the production of some system's or organism's movements. The system is not simply behaving, it is *acting*<sup>1</sup>

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I am very grateful to Fred Cummins for many conversations exploring the themes presented here.

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The terms 'action', 'behaviour', 'movement' and so on are used in a number of different and often conflicting ways in the philosophical and cognitive scientific literature. For the sake of clarity it may be worth explicitly spelling out how I use these words in the present paper. 'Behaviour' is any change in a system that is produced by the system's own activity. This could be a bodily movement in the case of an animal or it may be a weather

system moving across the landscape or producing rain. 'Action' is a subordinate category of behaviour that involves an intentional or normative aspect. Actions can succeed or fail, behaviour just is. Actions also imply agents. While we are often quite happy to talk about the behaviour of non-agentive systems (such as the weather, or a car) we are less comfortable attributing actions to them. 'Movement' is second subordinate category of behaviour, one that involves physical movement as opposed to, say, a change of state in a stationary body. There is of course overlap between the sets of movements and of actions.

From such a starting point, psychology simply is the attempt to understand agency and action.

Of course agency and action are inseparable from notions of agents and actors. Psychology, particularly in its interdisciplinary guise of cognitive science, offers us various tools of theory and method to make sense of these ideas. The individual cognitive agent, the acting organism, stands at the very core of the psychological endeavour. For the main, psychology/cognitive science has furnished us with concepts that fit easily with our Western intuitions concerning individuals and individuality. We have been provided with theories and explanations that concern single organisms behaving according to privately owned intentions.

In the past few decades this comfortable and familiar notion of the agent or cognitive system has become unsettled. A family of related theoretical perspectives has eroded some of the foundations of this individuality, and alternative conceptions of the person, or the agent, have gained a foothold in our thinking. The present paper explores some of the themes of the revised tradition, specifically those of embeddedness, or situatedness, and the dynamic nature of individuality and normativity. This new tradition – here illustrated and discussed in terms of the enactive approach (Di Paolo, Rohde, & De Jaegher, 2010; McGann, De Jaegher, & Di Paolo, 2013; Thompson, 2007; Varela, Thompson, & Rosch, 1991) – offers some very different views of the agent and of action, and encourages a particular understanding of these ideas that breaks many of our core intuitions.

The present paper does not seek to wholly unseat the requirement of individuality for ascriptions of agency, however, nor to deny the existence of agents. An analysis of the distributed or widely involving nature of actions, intentions and normativity involved in agency, however, will lead us to carefully re-assess the absolute centrality of the individual agent in actions. Furthermore, once a more distributed notion of agency is in play it will motivate us to look for new methods, ones that are more appropriate to the kind of science we will need for this revised perspective.

In the next section a more distributed notion of agency is outlined. A detailed definition of agency as put forward by Barandiaran, Di Paolo, & Rohde (2009) is first described, with a particular emphasis placed on the way in which agency is situated, a phenomenon emergent between an agent and its environment. In addition, using De Jaegher and Froese's (2009) analysis of social interaction as a particular aspect of the environment, agency within the kind of social embedding in which human beings exist is explored in more depth. While agency even in its basic case is environment-involving, De Jaegher and Froese argue that in many ways individual agency is not simply supported or enabled, but transformed, in interactions. How skilled action is entwined with social practice is then illustrated through an examination of Erik Rietveld's (2008) notion of situated normativity.

Having summarised this work arguing that agency is a situated phenomenon, and must be understood in a situated manner, the following section outlines a set of theoretical and methodological tools for helping us to think about this issue in a systematic manner. Drawing heavily on the work of Harry Heft (2001, 2011) the historical work of Edwin Holt and his concept of the situation is used, along with the methodological ideas of Roger Barker and Phil Schoggen, to outline what psychological research on situations might look like.

Finally, some of the implications of a radically situated agency are outlined, particularly in terms of whether agency is an essential characteristic of certain systems, or whether it is a purely ascriptional term.

## 1. Putting agency in context

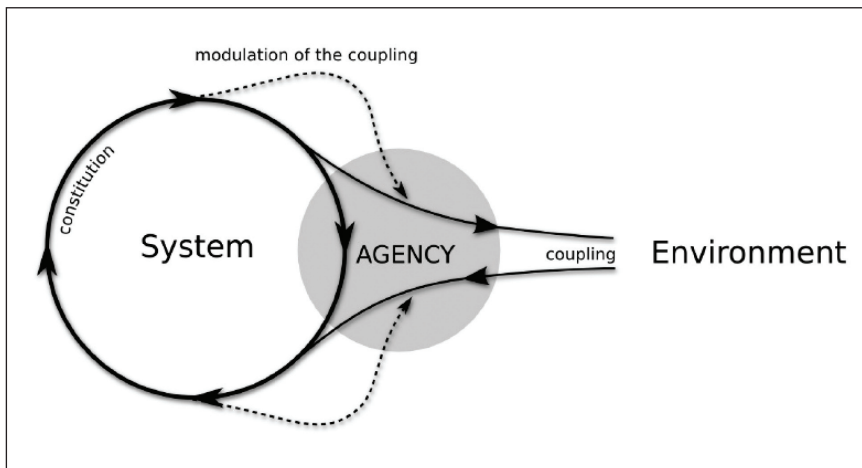
### 1.1. Defining ‘agency’

In a detailed and challenging paper examining the necessary and sufficient conditions for agency Barandiaran, Di Paolo, and Rohde (2009) identified three key characteristics: individuality, interactional asymmetry, and normativity.

Individuality is a requirement that an agent be bounded, identifiable as an entity distinguishable from its environment. This is a key issue for enactivists, who see cognition as essentially grounded in the autonomy of the agent, though with autonomy being considered in very particular terms. The enactivist account of autonomy depends on a system having organisational closure. This is to say that a system, an entity, is formed by a collection of interdependent processes (the classic example being the chemical processes that produce and maintain a living cell). The component processes of an autonomous system are interdependent, and their arrangement circular in character – every component process depends on at least one other, and supports at least one other component process. This circularity provides organisational closure, which means that you cannot interact with one part of the system without also interacting with all of the others. Through this dynamic organisation the system effectively distinguishes itself from its environment in a manner that is not dependent on the recognition of some external observer.

The second characteristic of agency identified by Barandiaran et al., interactional asymmetry, essentially concerns responsibility. Things which “just happen”, even if they happen to involve an identifiable individual, are not examples of agency (at least not usually, there may be exceptions in the form of cognitive “surfing”, Barandiaran et al, 2009, p.4). Agency requires that the agent be capable of shaping or modulating the interaction between itself and its environment rather than being only capable of reaping the fortuitous results of happenstance. We see in this second criterion an essentially interactive or transactive character to action, but the distinction between the agent and its environment is still clearly present. This distinction allows us to consider the coupling between the agent and its environment and how the system as a whole is capable of affecting the parameters of that coupling and thus capable of modulating the interaction between itself and the world around it. Agents must be capable of such adaptivity, with changes in the state of the agent changing the parameters of the interaction between it and its environment.

Crucial for the ideas that will be discussed further below, this description of agency as being a modulation of the coupling between the agent and its environment means that agency is not something that occurs within the agent. It is, rather, something that emerges in the interaction between the agent and its environment (Barandiaran et al. illustrate the relationship with the diagram in Figure 1). Agency, while proper to an individual agent due to the fact that it is changes in the state of the agent that affect the parameters of the interaction, is always situated, partly defined by the environment in which the action takes place. This bears some immediately relevant implications for the final characteristic of agency – normativity.



**Figure 1.** Agency emerges in the interaction between an agent (a self-sustaining set of processes indicated by the circle on the left) and its environment. The agent is capable of adaptively modulating the coupling between itself and the world. [Copyright 2009 Xavier Barandiaran under Creative Commons Attribution Share Alike licence, freedom is granted to copy, modify and redistribute this work provided that this notice is preserved.]

Actions are not simply movements. Interactional asymmetry means that agents affect the relationship between themselves and their environment, but, Barandiaran et al. note, this is not just a modulation, it is a regulation. There is a right-ness, an ought-ness, to action. Agents thwarted will take other routes to their goal but there is always a goal, however implicit. A fully fleshed out account of agency must include an account of goals, goal-directedness and normativity. There is, however, nothing inherent in the concept that demands those goals to be encompassed by the skin of the agent. In fact, given that a cognitive agent's behaviour is continually attuned to its environment, being structured by the details of the world in which it is acting, normativity involves aspects of the world beyond the agent as stipulated by whatever observations we are making. Normativity is not something that resides within individuals, but something that exists in contexts more broadly.

Barandiaran, Di Paolo, and Rohde's interest is in the definition of a basic or minimal form of agency. Noting the obvious need to avoid an infinite regress, their focus is on cases where there is no agentive aspect to the system or environment prior to the system in question. There are, though, cases of agency that arise in situations made at least partly of other agents. As it happens, this is likely to be the typical case, empirically, where agents arise, develop and exist within a ecology of other living things – conspecifics, prey, predators, and so on.

A complex case emerges where the agency of the individual is transformed by the interaction in which it is engaged with other agents. In the same volume in which Barandiaran et al. (2009) defined basic agency, De Jaegher and Froese (2009) explored some of the implications of these more complex forms.

### *1.2. Social interaction transforms individual agency*

Adopting an enactive approach to understanding agency involves acknowledging the peculiar dynamics of organisationally closed systems. While such

closure is most frequently modelled in terms of chemical or similar systems, it can also exist in the interaction dynamics between social agents. Where such systems come into existence within social interactions, the agency of the individuals involved becomes transformed. What was a set of two (or more) distinct agents involved in separate coordinations with their environments is encompassed by a larger shared activity, what De Jaegher and Di Paolo (2007) term ‘participatory sense-making’. Participatory sense-making is a phenomenon of shared activity in which all of the agents in question become enmeshed. It is crucial for the recognition of participatory sense-making that the autonomy of the individual participants within the interaction be maintained. The agency of the individuals is likely to be constrained in important ways, but it may also be expanded in others. If a social interaction becomes autonomous it need not dissolve the agency of the people involved, but will inevitably change it.

De Jaegher and Froese (2009) explore the implications of autonomous social interaction for individual agency in some depth. They argue that the agency of the individual participants is not simply limited or constrained by the shared actions, but is transformed by it. Intentions, actions, and skill learning can all occur within the interaction itself (rather than within the agent). More, there are some intentions that can be formed, actions that can be taken, and skills that can be learned *only* by agents involved in participatory sense-making. These intentions, actions or skills are not wholly proper to the agents in-and-of themselves, but to the agent-in-interaction. What is more, because the interaction is itself an emergent autonomous system there is a sense in which it is acting in the situation in a manner that is more than the sum of the actions of the individual participants. Participatory sense-making is not the product of a linear addition of the actions of each of the players involved, but an emergent phenomenon that must be dealt with in its own right, without losing sight of the autonomy of its participant individuals.

It is in this sense that social interaction transforms individual agency, drawing individuals into a realm of activity that cannot be fully understood by analysing the actions of each of the agents alone. The agents’ constitutive autonomy, their organisation as agents within the domain where the social activity is occurring, can be affected by their participation in the larger action (De Jaegher and Froese, 2009). De Jaegher and Froese (2009, p. 451) explicitly resist the conclusion that the situation itself becomes an agent, though they do so without an in-depth analysis of the issue, simply noting that social interactions are not the kinds of things that we would normally associate with having a perspective.

Participatory sense-making crucially involves individuals who are sensitive and responsive to one another. Their interaction must be sufficiently fluent in the first instance that it can take on a momentum of its own and draw the individual interactants into the interaction’s trajectory. Enactivists would not argue, though, that such autonomous interactions are rare (although they may well be brief). As such, it is frequently the case that human agency is something that must be recognised as existing beyond single biological bodies. In such cases, the question of how actions should be evaluated, what norms are forming or governing the actions of the individual agent becomes something of a tricky question. Without our intuitions about the *internality* of action governance, we need an alternative set of concepts for considering agents acting in concert with their settings.

### *1.3. Situated normativity and the agency of practice*

Actions are at least in part defined by their normative character. They can succeed or fail. They can go well or poorly, and when going poorly corrective action might be taken to improve the likelihood of some positive outcome. In a more traditional theoretical framework the normative aspect of an action would be determined by the intention which gives the action its shape. This would fit with our intuitive notions of agency, whereby an action occurs precisely because some agent intended to perform it (it is the intention that makes it an action). It is successful or not depending on the level of correspondence or similarity between the intention in question and the behaviour it drove.

The notion of intention is actually a problematic one for more dynamic conceptions of agents and agency, however. The enactive approach that has been broached here cannot simply help itself to extant notions of intention as these tend to traffick in representations, determinate content and other things that the enactive approach generally eschews. More specifically related to our interests in the present paper, intentions are something that are normally considered to reside within the head of the individual agent performing the actions that express them. That is, the intuitive and traditional notion of action requires an individualistic conception of the agent that enactive theorists have sought to undermine.

Norms need not be held entirely by individuals, however. Drawing on work by Wittgenstein, Erik Rietveld (2008) has developed the idea of ‘situated normativity’, a form of normativity that exists within the entire field of endeavour in which a skilled agent is operating. Rietveld notes that many of the actions we take unreflectively, seemingly without explicit intention, are nevertheless normative. They are normative in the sense that they express or enact a judgement about the state of the things. These unreflective actions are indicative of what Rietveld, following Wittgenstein, calls “directed discontent” (Rietveld, 2008). Directed discontent is the feeling that things would be better if a particular action was taken. For example an architect, on reviewing a model of a building being designed, might feel the need to raise the height of a door. The action to be taken is clear – it is, Rietveld notes, not an urge to widen the door, nor to just do something (which might be termed a directed discomfort), but specifically to raise the height of the door. The professional’s feeling of discontent with the current design is expressed directly in terms of the action to be taken to remedy the situation. An academic might imagine a speaker at a conference who departs from their script to recount an anecdote. The action is taken unreflectively – the practised speaker simply feels the need to illustrate a concept further, or to liven up the presentation amid a tense or dull session. Though professional examples offer some clear examples, this kind of skilful, unreflective action is not limited to such professional terms. Rietveld also discusses how we position ourselves within an elevator, implicitly maintaining an appropriate distance from other people in the lift.

Rietveld (2008) uses professional cases to illustrate a characteristic of directed discontent and unreflective action that is particularly important for our present concerns. As we become skilled in a particular domain of activity we make ourselves sensitive to norms that are proper to that domain, in many cases doing so implicitly. Rietveld provides the example of the tailor who, when measuring and cutting material, will have their actions guided by the specifics of that particular situation defined not just by the details of the garment to be produced, the type of fabric in use, and the tools at her disposal but also the fashions of the time and the likely shift in tastes in the coming months.

The normativity that determines the degree of success of her actions is not something that exists in whole terms within the tailor, but exists within the set of practices and norms of action within her profession, her social group, and the fine details of the physical environment (including the possibilities of the fabric and implements) with which she is engaged. The normativity of her actions is situated, embedded in all of these interwoven processes rather than ensconced within her skull.

The anthropologist Tim Ingold (2000) notes that what makes the skilled professional skilled is not simply the amount of knowledge and their disposal, but their sensitivity to the specific details of the present situation, i.e. their capacity to respond to and coordinate with the constraints and possibilities in the particular situation, the particular materials, with which they are engaged. This is to eschew the idea of a fully-formed plan in the mind of the agent that determines the success or failure of their actions by a process of matching output with ideal, and to replace it with a conception of action that sees what is intended as being shaped by the opportunities and constraints of the environment – agency is not a unidirectional acting of agent on the world, but a subtle and judicious shaping of the interaction as a whole. It is a matter of bringing agent and environment into a closer and more fluent *coordination* (in terms very similar to those put forward by Dewey, 1896).

The normativity that is required for the recognition of agency does not exist wholly within the agent as we normally recognise them, but is distributed through the environment in which the agent is acting, in its physical and social aspects.

#### ***1.4. Situated agency***

The enactive approach to understanding agency that has been outlined here carries with it the implication that agency is something that happens not in individuals but in situations. True, those situations must contain agents, but those agents cannot exhibit any agency without an environment with which to interact.

Action is always directed toward something, it is always world-involving. The meaning of an action is not determined wholly by some intention in the head of the agent, but emerges in the situation as a whole. This idea of a cognitive situation is a complex one that has to date not seen much explication in the enactive literature. Di Paolo (2009) explores this issue to some degree, noting how the organisation and normative character of cognitive activity is transformed as an agent becomes embedded within or coupled to, different systems (personal, social, cultural) within its environment.

By and large, however, enactive cognitive science lacks a description of situations that can fruitfully be deployed to scaffold theoretical considerations or empirical work on these relational domains involving agents and environments. Fortunately, some historical work within psychology may offer us a solid foundation on which to build.

## **2. A psychology of situations**

Acknowledging the inherently relational nature of cognitive activity is not comfortable for those of us with a Western conception of ourselves as individuals, empowered and independent. It is also problematic for us as cognitive scientists given the theoretical assumptions and standard methods extant

within the discipline. There is a challenge in recognising that agency is not circumscribed by the organism but that it is distributed through the physical, and particularly the social, environment in which the organism is operating. The challenge is to prevent a slide from thinking that agency is distributed, to thinking that it is dissolved entirely – what would amount to a sad trudging back to the worst accusations laid at the feet of a stereotyped behaviourism. In order to prevent such despair, and to enable a disciplined science of distributed cognition to operate, we require a technical notion able to support clear thinking about the issue.

Into this role I suggest we place Edwin B. Holt's concept of the 'situation', as recently reinvigorated by Harry Heft (2001, 2011) using the tools of Roger Barker and Phil Schoggen's behaviour settings theory (Barker, 1968; Schoggen, 1989).

### ***2.1. Holt's description of situations***

The work of Edwin Holt in the early twentieth century presaged many of the considerations that have been pushed to the fore by the rise of dynamic, embodied approaches to understanding the mind. In a similar manner to Dewey, Holt looked past the dichotomy between organism and environment and highlighted the relations between them. Psychological activity, for Holt, was not something that occurred in an organism's head, but within a situation of which both the organism and the environment were essential parts. As long ago as 1915 he eloquently and succinctly described the perspective at which we have arrived.

"[A] total situation comprising *both organism and environment* is always involved. ... inseparable because, if organism and environment are sundered, the cognitive relation is dissolved, and mere matter remains." (Holt, 1915, p. 99)

Situations as intended by Holt are not simply sets of physical context, or collections of objects within a particular location. They are instead sets of relations that are perceived and engaged with (Heft, 2011). The situation is the medium of cognitive activity. For Holt the proper unit of study for psychology is the situation, and to attempt to examine either the agent or the environmental context independent of the other is to "dissolve" the cognitive relation and thus leave ourselves blind to psychological phenomena.

Heft argues that situations are a valuable concept, a means of theorising the relational nature of cognition, of disciplining our considerations of the mind once we surrender our intuitions about the self-sufficiency of the agent. Though it has yet to be fully articulated within empirical research a set of resources for thinking about the psychology of situations does exist. Independently of Holt's work research began in the 1940s and continued for several decades but has, regrettably, had little impact on the conduct of mainstream psychology or cognitive science. Heft suggests that this work, the eco-behavioural science of Roger Barker (1968) and Phil Schoggen (1989) and their colleagues, is a prime candidate for disciplining Holt's idea of the situation.

### ***2.2. Barker's ecological psychology***

On a train journey across Kansas in the mid-1940s Roger Barker experienced something of a "negative epiphany". Passing through several small towns he realised that though he was an expert in the behaviour of young children (particularly concerning frustration and aggression) he could not speak with



any authority about how people actually behaved in their day-to-day lives. Though he was versed in the best theories of his day regarding human behaviour, he could say nothing with confidence about how people actually behaved in their natural habitat, as it were. Though we are perhaps much more sensitive to such issues in our present day science, a short lament of Barker's still strikes near the mark:

“In accordance with the principles of experimental design [psychology] has excised these environmental elements from the complexities of the real-life settings in which they occur... The result is, inevitably, that the science of psychology has had no adequate knowledge of the psychologist-free environment.” (Barker, 1968, p. 4)

Along with a group of colleagues he therefore set up a field research station in a small town, known primarily in their publications by the pseudonym ‘Midwest’. The purpose of the research station was to study human behaviour within the context of its natural environment. Extensive observations were made of various groups of people in the town simply carrying out their lives as normal. Initially, the aim was to determine whether human activity followed the kind of pattern that dominant psychological theories of the time suggested it would. The expectation was that most behaviour exhibited by people would be in response to a behaviour by someone else – a social stimulus would provoke a given behaviour as response. While this proved to be a common occurrence, the idea left a striking proportion of behaviour unaccounted for. Approximately half of all observed behaviour could be shown to have such a social stimulus antecedent, leaving half of all observed behaviour being structured by something else.

In examining data on children's behaviour as they were collected over the course of their day Barker noted that the children's behaviour exhibited some clear patterns. In particular, it depended considerably on *where* the child was. Barker describes the finding as follows:

“We found, in short, that we could predict some aspects of children's behavior more adequately from knowledge of the behavior characteristics of the drugstores, arithmetic classes, and basketball games they inhabited than from knowledge of the behavior tendencies of particular children.” (Barker, 1968, p. 4)

To make sense of this pattern of findings Barker and his colleagues developed a theoretical framework and set of methods to examine behaviour at the “molar level” – where variability in individual behaviours converged to display coherence and contour. Barker's ecological psychology, what he would later come to consider an “eco-behavioural science”, provides a means of understanding how situations structure behaviour.

Barker's science describes the ecological environment for behaviour. Separately to Gibson (1979), but in a very similar vein, Barker sought to describe the environment with which we actually engage, the ecology of behaviour rather than its mere physical surroundings. Rather than dealing in purely physical characteristics, describing contexts as collections of objects or stimuli, the environment is described in terms of *behaviour settings* (Barker, 1968; Schoggen, 1989).

A behaviour setting involves one or more standing patterns of behaviour along with that pattern's physical milieu. A person in such a setting is immersed not just in the objects and physical context but in the normal routine and practices that define the setting. Behaviour settings are readily recognisable even without knowledge of the theory – they are settings with which we naturally and comfortably engage over the course of our normal activities. Examples are

a basketball game, a piano lesson, a committee meeting, a religious service. They tend to have easily identifiable boundaries both physically (the walls of a classroom, the edges of a playing field or stadium) and often temporally (the duration of a game, period of a class). The possibilities of action are defined by the setting such that only some actions become possible, some actions become necessary, and some others are ruled out (at least without sanction by other participants in the setting). Behaviour settings are thus inherently normative and tend to organise the behaviour of their participants in such a way as to maintain themselves, though this certainly varies depending on the rigidity of the setting. A committee meeting, for instance, may have quite strict rules of behaviour such that a participant acting inappropriately will face immediate intervention from fellow participants. A less rigid behaviour setting, on the other hand, such as a coffee appointment with friends, might adapt or simply dissolve should its participants not act in accordance with its norms.

Barker describes the physical milieu as *synomorphic* to the pattern of behaviour. That is a rather unfortunately awkward term to indicate that the milieu is similar or complementary in structure to the behaviour. The unified nature of a behaviour setting or its synomorphs contrasts with how the environment is frequently described in more traditional accounts. As Barker relates, psychologists tend to view the environment as “a relatively unstructured, passive, probabilistic arena of objects and events upon which a man behaves in accordance with the programming he carries about with himself” (Barker, 1968, p. 4). But the majority of physical settings in which we find ourselves are synomorphs to the patterns of behaviour that inhabit them. Committee meeting rooms have tables and chairs arranged appropriately, as do classrooms, though with different arrangements. Sports pitches are laid out carefully, as are roads, shops, our kitchens and living rooms, pubs and theatres. Whether implicitly or explicitly, our physical environments are designed, and in the production of such designed places the environment takes on a normative character and can constrain or coerce behaviours. Heft writes:

“The relation between milieu and behavior is not contingent. It is not the case that because this room worked well as a classroom on previous occasions that it can be used for that purpose again. Rather it worked well on previous occasions (or not) because of its structure or form.

Because the meaning of the setting resides in the congruence between behavior and milieu, this relational structure has the potential to bring actions of individuals entering the setting into line with its functional character.” (Heft, 2001, p. 288)

Here, Heft is effectively pointing out here how constructed settings instantiate parts of Rietveld’s situated normativity. The physical and social structures in a setting both constrain and enable behaviours such that behaviour appropriate to the setting is evoked.

### 2.3. *Synomorphs, affordances, and normativity*

Barker (1968) describes behaviour settings as consisting of sets of “behaviour-milieu synomorphs”, or just ‘synomorphs’. A synomorph consists of both behaviour and its requisite physical attributes, a whole of “behaviour-and-circumjacent-synomorphic-milieu entities” (Barker, 1968, pp. 19–20). This concept is specifically intended to allow descriptions of a behaviour setting to maintain the relations between actions of the participants and their environment that are so frequently missing from standard psychological science. The close relationship between behaviour and physical milieu bears a striking similarity to Gibson’s (1979) notion of an affordance.

Heft (2001) argues convincingly that synomorphs in behaviour settings are fruitfully thought of in terms of affordances, though sometimes of a form that would sit uncomfortably with Gibsonian ecological psychologists. In the case of a synomorph the affordance is for particular actions in the standing pattern of behaviour, which may be enacted by a group of people rather than just one – an affordance at the group level rather than that of the individual agent. This runs directly counter to Gibsonian thinking, where affordances are by definition relative to the individual perceiver. Heft (2001) goes on to argue, however, that a description of behaviour settings in terms of affordances rather than the more general behaviour settings vocabulary, forces the observer to consider not just the standing pattern of behaviour but also the membership of the people who can or will enact that pattern of behaviour in particular instances. There are various means by which the membership of behaviour settings is controlled, as ever some physical (the physical scale of some classrooms limits their usefulness to all but young children), some social (a host of social, legal and other limitations control presence in different environments), but in considering the various ways in which a behaviour setting's affordances not just enable but also constrain the possibilities of actions and actors in a setting, the potential normativity inherent in behaviour settings rises to our attention.

The relationship between affordances and norms is not easy to articulate. On the one hand, affordances in the purest sense intended by ecological psychologists are independent of the intentions or current perceptions of the animal. Affordances are pre-perceptual, they are present in the environment whether we are looking at them or not. For example, the ground is flat even before we look at it or step on it, despite the fact that its flatness might be dependent on the scale of our bodies (what is flat for us humans might be a rough terrain of minor hills and valleys for an ant, for example).

The precise nature of the relationship between affordances and the animals who might engage with them is rather a fraught one in the ecological psychology literature. For the purposes of the present paper I would like to focus on a particular subset of affordances – those made available not just by physical proportions but by a certain level of competence in a given field of action. Professional activity makes for clear examples of such fields but as we have already noted, following Rietveld (2008), high levels of competence are not limited to professions. Many of our common daily actions are examples, with personal and social skills honed over years or decades of use. Rietveld notes the ease with which we can position ourselves in an elevator with another person so as to obey implicit rules of personal space, or we might also consider the ways in which we have learned when to speak or remain quiet in committee meetings or interactions with professionals (such as parent-teacher meetings, for instance).

In cases where competence enables our actions to be unreflective, affordances do not simply enable our behaviour, they guide it. Dreyfus and Kelly (2007) argue that affordances *solicit* actions. The perceiver “experiences the environment *calling for* a certain way of acting, and finds himself responding to the solicitation” (Dreyfus & Kelly, 2007, p. 52). This evocation of action from a skilled actor in an environment indicates that affordances, in these cases of competence, are normative. They involve the achievement of an end. They are in fact a crucial aspect of Rietveld's situated normativity (2008).

Barker and Schoggen argue that behaviour settings, like affordances, are pre-perceptual. They claim that they exist prior to, and to a large extent independ-

ent of the participants who might become involved with them. To an extent, it seems clear that many if not most behaviour settings are indifferent about the specific individuals who come to occupy them. The fine grained details of the actions taken to enact the standing pattern of behaviour might also vary. Their work nevertheless contains an extensive examination of the different ways in which settings control their occupants and force changes in occupant behaviour to produce the patterns of behaviour appropriate to the setting. We can see, then, that in order to be properly present within a behaviour setting is to be capable of acting within that setting, to be capable of attuning one's actions to the setting in its normative aspects (which will involve coordination with constraints that might be described in physical, social or other terms). The behaviour setting itself, through the presence of its various synomorph components, constrains and potentially coerces the behaviours of those involved.

### 3. The normative field

The agency of most, if not all, human beings, exists within a medium formed partially from the actions of other human beings (and indeed, of many non-human agents). Social practices saturate the environment in which we live. In the normal course of day-to-day existence there are very few behaviour settings that we encounter that have no normative aspect. From birth, particular skills, patterns of action, and ambitions are cultivated in human development that ensure a normally functioning person displays little by way of the kind of basic agency that was the focus of Barandiaran, Di Paolo, and Rohde's analysis. The normativity of our actions is never wholly our own. The majority of the behaviour settings with which we engage are designed, curated, to shape our behaviour in accordance with broader social norms and goals. Human action is frequently normative prior to the actor engaging in the behaviour.

Agency does not simply arise with agents. Rather agents emerge and attune themselves to a much larger pre-existing field of normative pressures. As a parallel, Ingold notes that life is not in things, things are in life (Ingold, 2006, 2011, particularly Chapter 7).

Processes of enculturation open sets of possible actions for an individual (sets of potential action that are also expressions of the values of the culture in question). Resources, such as behaviour settings, are made available to the newly arrived (whether neonate or immigrant) and culture-appropriate actions are thus fostered. Cultural practices are in a sense a form of cognitive husbandry. Our understanding of just how a newly arrived member of a culture comes to learn the meanings of actions, places, how they become inducted into behaviour settings, is very limited (the psychological processes involved in particular, Heft, 2001, p. 294; though see Ingold, 2000, Chapter 19). Nevertheless, that such cultivation of activity occurs seems clear.

Individual human agency as we recognise it depends in large part upon other human agency. Our actions form not just in personal intentions but in a complex field of interacting norms. While biology plays a role in some of these norms and there is an essentially individual aspect to them, even basic biological demands are transformed in cultural context. We tend to eat at socially appropriate times and choose appropriate foods – it is rarely that a Westerner would find themselves with an appetitive urge for an insect grub. Fast food, however, might be a different story. Similar patterns go for drink, sex, sleep and other biological imperatives.

The medium of human psychology is other human minds, in their full embodied, situationally embedded nature. In situations where we are alone our actions are structured by the norms inherent in our designed behaviour settings as well as in our instantiation of cultural and social norms of individual activity (see Di Paolo & De Jaegher, 2012). Even hermits can only become so once they have been sufficiently trained into the required skills and adopted the mannerisms appropriate to the recognised social role.

### *3.1. The complexity of the normative field*

Holt argued that psychology exists neither in the agent, nor the environment, but in the situation, that cognition is a relation that holds between an organism and its environment. Theorists working within the enactive approach make the same claim. From such a perspective agency is something that holds in situations, and actions occur in a medium not of bodily movements but of norms howsoever they are instantiated – biological, historical, social or otherwise. This is a challenging view because it resists two easy tendencies in cognitive science. On the one hand, if we acknowledge such a relational view the possibility of reducing human agency to the activity of the brain or body is eliminated. To make such a move would be, as Holt puts it, to sunder the relation between organism and environment and dissolve the psychological phenomena in which we are interested.

A second easy response is, on the other hand, to deny there is anything of interest here but a distinction of convenience, à la Dennett's intentional stance (Dennett, 1987). Agency is not something that is characteristic of a system or situation but is instead an ascription that we find useful in different circumstances. In the framework being sketched here there is some currency to this idea. Because of the perspectival nature of any given observer's interaction with their environment there will always be a selectivity to the description of a given situation. An observer's interests and goals, their embodiment and skills, the setting in which they are working, all of these things play a role in observations made. This selectivity on the part of the observer along with the complexity of the normative field in which observed agents are acting means that it will rarely be the case that a single, comprehensive description of an agent's actions might be given. In a given behaviour setting an individual might have several personal intentions, a social role or two to play in the setting, as well as their actions being moulded by the details of the setting's milieu. All of these factors bring forth the behaviour that is observed but no one facet may exhaustively explain that behaviour. What is more, some of these apparent influences on behaviour may be in tension or direct conflict. Determining the appropriate description for a set of behaviours will likely involve an extended engagement with the agent and may involve a careful weighting of various conditions on their actions, perhaps suppressing or overruling direct claims made by the agent in the face of contradictory behavioural evidence. Actions might speak louder than words. (Indeed, in such cases we see the beginnings of an enactive account of a dynamic unconscious – a recognition of the multiply normative character of behaviours in most circumstances.)

Just because there will often (if not always) be more than one possible story to tell about a given observed behaviour does not, however, mean that the ascription of agency is arbitrary, or one purely of convenience. The normative field is not homogenous. Though it is complex, and more than one narrative might pick out a coherent path through its landscape over time, the field has a structure that is determined by the myriad norms involved. They will be com-

plex, and they will change, perhaps continuously, but over any given period of time they will constrain the kinds of stories that can be sensibly told about the behaviour of the agents embedded in the field. The principles that Barandiaran, Di Paolo, and Rohde (2009) describe still act as principles, though perhaps revised or altered ones, for making such decisions.

### **3.2. *A speculation: collaborative action, institutional agents, and interactional asymmetry***

If we accept that embedding in a social network transforms individual agency, or in the case of people enables the development of a recognisably human form of agency, we face a question about boundaries. Barandiaran et al.'s definition of agency requires that the agent be an individual, an autonomous system. They explicitly acknowledge the likelihood that agency involves systems that are not rigidly bound to physical bodies (they note the role of social and cultural factors in identity), but that leaves open the question as to how the idea of an individual human agent should be conceived once we loosen its relationship to the body as perceived. Individual human agents have bodies, but the processes that form their human identities are not confined to those bodies (Di Paolo, 2009).

Answering the question about where one person ends and another begins is beyond the scope of the present paper. However, we can note that there is nothing in the requirement for individuality that prohibits individuals that overlap. Where actions are collaborative, settings and goals shared or where a number of individuals have all been caught up in a grander endeavour that is shaping their identities there might be significant sharing of personal and cognitive resources. Such shared activities are precisely the domain of participatory sense-making, and the theoretical resources deployed by De Jaegher and Di Paolo (2007) helps us to make sense of how mutual activity involves joint cognitive action.

Given the manner in which behaviour settings can evoke or coerce particular behaviours from individuals, however, a different but related question arises. Despite De Jaegher and Froese's (2009) scepticism, can behaviour settings be considered agents? And what do settings' capacities for shaping the behaviour of their participants imply for the criterion of interactional asymmetry?

Barker (1968, p. 19; see also Schoggen, 1989, p. 32) explicitly notes that behaviour settings have clear boundaries. Most frequently these are physical in nature (e.g. the edge of a sports pitch, the walls of a classroom). The static nature of such boundaries means that they are not the kind of dynamic, self-affirming boundaries that Barandiaran et al. associate with the identification of an agent. It remains an open question, however, as to whether a particular instance of a behaviour setting might constitute an *action* on the part of some larger agentive entity. Institutions, much like human beings, form themselves in a medium of human activity rather than in physical space. Over time behaviour settings are formed that maintain the institution in a dynamic fashion, effectively metabolising the behaviour of groups of people to continue its own existence. Whether such a description of an institution or other cultural practice is metaphorical or literal will depend on there being a coherent account of the institution's dynamic individuality. No claim is made here regarding the any specific case, though I do suggest that there may be such cases of genuine institutional agency. The possibility of this raises an interesting question of behaviour settings' ability to constrain or shape the behaviour

of those involved in them, and whether there are implications for the criterion of interactional asymmetry.

The notion of interactional asymmetry is rather a tricky one at the best of times. Though it seems crucial to a description of agency it is not an easy one to pin down in precise terms. Barandiaran, Di Paolo, and Rohde (2009) themselves note that neither organisation of energy expenditure nor the statistical characteristics of agent-environment influence can reliably identify where the balance of power lies in a given interaction. I will not speak to that particular question in any more depth here except to point out that in the case of individual and institutional actions in a complex normative field, interactional asymmetry is not necessarily a zero-sum game. Barandiaran et al. themselves discuss the possibility of “surfing”, whereby small motions on the part of the agent make effective use of the on-going flows of energy in the agent’s environment to get work done. Because of differences in scale and, possibly, the medium of action (at the group level rather than individual person) activity in behaviour settings may constitute an action by an institution without jeopardising the agency of the individuals engaged in those actions. Overlapping, interacting norms may well allow institutions to make of personal behaviour what we make of the behaviour of our constituent cells.

### **Conclusion: Immersed in value**

An enactive take on human agency runs counter to a prototypical Western view. Rather than actions moving outward into behaviour from represented ideals or intentions, they flow like currents through complex fields of normative value. Actions emerge in situations, relational domains involving both agent and environment.

Acknowledging agents and agency as being radically situated means adopting a new perspective on psychology, and provides a host of challenges for both theory and method within the discipline of psychology as well as the broader project of cognitive science. It is fortuitous, however, that the history of psychology offers a set of theoretical and methodological ideas that parallel in a very useful way those of the more recently developed perspective. This paper has suggested that a mining of this existing material will be a fruitful exercise for enactivists, as well as outlining some of the more interesting implications of such an approach to understanding the mind. While they provide useful structure to our thinking about topics in the “blindspots” of traditional cognitive science, the usefulness of these ideas in making sense of actual human behaviour remains uncertain. Full engagement with empirical research questions about human behaviour remains a challenge for the enactive approach generally – there is surprisingly little such research extant. Perhaps behaviour setting theory will provide the framework for data collection and analysis that will finally enable science to examine the mutually dependent relationship between a human agent and their world in a systematic and comprehensive manner.

## References

- Barandiaran, X., Di Paolo, E., & Rohde, M. (2009). Defining agency: individuality, normativity, asymmetry and spatio-temporality in action. *Adaptive Behavior*, 17(4), 1–13.
- Barker, R. G. (1968). *Ecological psychology*. Stanford, CA: Stanford University Press.
- De Jaegher, H., & Di Paolo, E. (2007). Participatory sense-making. *Phenomenology and the Cognitive Sciences*, 6(4), 485–507.
- De Jaegher, H., & Froese, T. (2009). On the role of social interaction in individual agency. *Adaptive Behavior*, 17(5), 444–460.
- Dennett, D. C. (1987). *The intentional stance*. Boston: MIT Press.
- Dewey, J. (1896). The reflex arc concept in psychology. *Psychological Review*, 3, 357–370.
- Di Paolo, E. (2009). Extended life. *Topoi*, 28, 9–21.
- Di Paolo, E. A., Rohde, M., & DeJaegher, H. (2010). Horizons for the enactive mind: values, social interaction and play. In J. Stewart, O. Gapenne, & E. Di Paolo (Eds.), *Enaction: Towards a new paradigm of cognitive science*. Cambridge, MA: MIT Press.
- Di Paolo, E., & De Jaegher, H. (2012). The interactive brain hypothesis. *Frontiers in Neuroscience*, 6(163).
- Dreyfus, H., & Kelly, S. D. (2007). Heterophenomenology: heavy-handed sleight-of-hand. *Phenomenology and the Cognitive Sciences*, 6(1–2), 45–55.
- Gibson, J. J. (1979). *The ecological approach to visual perception*. Boston; London: Houghton Mifflin.
- Heft, H. (2001). *Ecological psychology in context: James Gibson, Roger Barker, and the legacy of William James's radical empiricism*. (1st ed.). London: Lawrence Erlbaum Associates.
- Heft, H. (2011). E. B. Holt's "recession of the stimulus" and the emergence of the "situation" in psychology. In E. P. Charles (Ed.), *A new look at new realism: E. B. Holt reconsidered*. Piscataway, NJ US: Transaction Publishers.
- Holt, E. B. (1915). *The Freudian wish and its place in ethics*. New York: Holt Company.
- Ingold, T. (2000). *The perception of the environment: essays on livelihood, dwelling and skill*. London: Routledge.
- Ingold, T. (2006). Rethinking the animate, re-animating thought. *Ethnos*, 71(1), 9–20.
- Ingold, T. (2011). *Being alive: Essays on movement, knowledge and description* (1st ed.). London: Routledge.
- James, W. (1950/1890). *The principles of psychology*. Vol. I. New York: Dover.
- McGann, M., De Jaegher, H., & Di Paolo, E. (2013). Enaction and psychology. *Review of General Psychology*, 17(2), 203–209.
- Rietveld, E. (2008). Situated normativity: The normative aspect of embodied cognition in unreflective action. *Mind*, 117(468), 973–1001.
- Schoggen, P. (1989). *Behavior settings: A revision and extension of Roger G. Barker's "Ecological Psychology"*. Stanford, CA: Stanford University Press.
- Thompson, E. (2007). *Mind in life: biology, phenomenology and the sciences of mind* (1st ed.). Cambridge, MA: Harvard University Press.
- Varela, F. J., Thompson, E., & Rosch, E. (1991). *The embodied mind*. Cambridge, MA: MIT Press.



**Marek McGann**

### **Situirana djelovnost: normativni medij ljudskog djelovanja**

#### **Sažetak**

*U ovome se radu kritički ispituje pojam individualne djelovnosti u svjetlu odjelovljujućeg pristupa razumijevanju uma. Tvrdi se da, prateći rad Hanne De Jaegher, Ezequiel Di Paola, Toma Froesea i dr., djelovnost mora biti shvaćena u terminima koji su situacijski, a ne ograničeni biološkim individuama. Takav revidiran pojam djelovnosti predstavlja značajne izazove našoj trenutnoj teoriji i istraživačkoj praksi u tom području. Oslanjajući se na radove Harryja Hefta, Rogera Barkera i dr., predložit će se neki teorijski i metodološki resursi koji bi mogli pomoći u suočavanju s ovim izazovima. U radu se tvrdi da pojam 'okružje ponašanja', koji su razvili Barker i njegovi suradnici a nedavno doradio Heft, nudi koherentan način mišljenja koji odgovara sistemskoj i holističkoj naravi situirane djelovnosti.*

#### **Ključne riječi**

djelovnost, odjelovljenje, okružje ponašanja, situiranost, društvena interakcija, davanje smisla

**Marek McGann**

### **Situierte Handlungsfähigkeit: normatives Medium des menschlichen Handelns**

#### **Zusammenfassung**

*In diesem Paper wird der Begriff der individuellen Handlungsfähigkeit kritisch untersucht – im Lichte des enaktiven Ansatzes zur Auffassung des Verstands. Indem man die Arbeit Hanne De Jaeghers, Ezequiel Di Paolos, Tom Froeses u. a. verfolgt, wird dargelegt, dass die Handlungsfähigkeit eher unter dem Situationsaspekt betrachtet werden muss als unter dem Aspekt der Begrenzung durch biologische Individuen. Solch eine revidierte Notion der Handlungsfähigkeit stellt bedeutungsvolle Herausforderungen für unsere aktuelle Theorie und Forschungspraktiken in diesem Bereich dar. Gestützt auf die Arbeit von Harry Heft, Roger Barker u. a. werden einige theoretische und methodologische Ressourcen vorgebracht, die zum Herangehen an diese Herausforderungen beitragen könnten. Man vertritt die Ansicht, dass der Begriff der „Verhaltenseinstellungen“, den Barker samt seinen Kollegen entwickelt und Heft in jüngerer Zeit nennenswert verfeinert hat, eine kohärente Denkweise bietet, die der systemischen und holistischen Natur der situierten Handlungsfähigkeit entspricht.*

#### **Schlüsselwörter**

Handlungsfähigkeit, Enaktion, Verhaltenseinstellungen, Situietheit, soziale Interaktion, Sinngebung

**Marek McGann**

### **Capacité d'agir située : Le moyen normatif de l'action humaine**

#### **Résumé**

*Dans cet article, la notion de capacité d'agir individuelle fait l'objet d'un examen critique à la lumière de l'approche éactive de la compréhension de l'esprit. On affirme que, suivant les travaux de Hanne De Jaegher, Ezequiel Di Paolo, Tom Froese et d'autres, la capacité d'agir doit être considérée en termes situationnels plutôt que limités aux individus biologiques. La notion de capacité d'agir ainsi revue présente d'importants défis à l'encontre de nos théories et nos pratiques actuelles dans ce domaine. En s'appuyant sur les travaux de Harry Heft, Roger Barker et d'autres encore, sont avancées quelques ressources théoriques et méthodologiques susceptibles d'aider à répondre à ces défis. On affirme que la notion « d'environnement comportemental » développée par Roger Barker et ses collègues, plus récemment quelque peu affinée par Harry Heft, propose une façon de réfléchir cohérente dans des termes qui abordent la nature systémique et holistique de l'activité située.*

#### **Mots-clés**

capacité d'agir, éaction, environnement comportemental, situation, interaction sociale, faire-sens