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The Significance of Habit

ABSTRACT

Analysis of the concept of habit has been relatively neglected in the contemporary analytic literature. This paper is an attempt to rectify this lack. The strategy begins with a description of some paradigm cases of habit which are used to derive five features as a basis for an explicative definition. It is argued that habits are social, acquired through repetition, enduring, environmentally activated, and automatic. The enduring nature of habits is captured by their being dispositions of a certain sort. This is a realist account of habits in so far as the dispositions put forward must fit with some recognizable underlying system – in the case of humans a biological system – to fill the role as set out by the definition. This role is wide-ranging; in addition to the familiar cases of habitual behavior, habitual activities also include thinking, perceiving, feeling and willing.

KEYWORDS: action; competence; habit; pragmatism; skill.

**I. Introduction**

Very little attention has been paid to the concept of habit in the contemporary analytic literature.[[1]](#footnote-1) One noteworthy exception is Bill Pollard who argues that habits have been overlooked in contemporary analytic accounts of action, and of rationality. He argues, *inter alia*, that a habit is constituted by the actions that comprise it (2006), and that we ought to reconcile an apparent disconnect between habitual actions and actions for reasons (2003). What I will say here will not bear directly on that aspect of Pollard’s work. I do sympathise with the general project of re-introducing habit theory into questions of action and agency, and even to issues of identity though I won’t talk about those issues here.[[2]](#footnote-2) The purpose of this paper is to assist our way in to those questions by setting out the foundations for an account of habit through a focus on what we mean by that concept.

I begin with some background remarks on habit, including its relation to the normative, the scope of habit, the paradoxical nature of habit, how we individuate habits and some remarks about method. Following this I present the account. It will start with description of some paradigm cases of habits and I then offer what might be called an *explicative* definition based on five features from the examples. Habits are phenomena arising out of social contexts; they are acquired through repetition; they occur as a result of enduring structures within an agent; they are activated in the presence of environmental triggers; and this activation occurs automatically while remaining susceptible to control. The role of habits is wide-ranging: the procedures, routines, customs, tendencies, and so on – those sub-categories of habits – play out not just in the central cases of behaviour, but also in thinking, perceiving, feeling and willing.

As to category, habits are dispositions. The literature on dispositions is extensive, and I won’t elaborate or defend a position in relation to it. But in this connection I can indicate the general territory to which I think an account of habits is best aligned: habits are intrinsic to the organisms possessing them; they are realised in response to environments that condition them; and these realisations may be constituted in different kinds of systems. Since I am giving an account of habit in the context of human social life, it is human socio-biological systems that must explain them at this dispositional level. (For example, in the case of musicians, whose abilities depend on habit-based skills, we see brain evidence, for example in conductors, correlating their musical capacities with larger-than-usual cerebella, an important site for musical processing)[[3]](#footnote-3). Finding naturalistic explanations for human habits is thus a question at home in the relevant sciences. However, I am agnostic on the question whether non-human, or even non-biological systems, might possess habits. There is no *a priori* reason to deny the possibility. What is important is that such systems would need to possess a preponderance of the five conditions.

**II. Background Remarks**

Without habits it is safe to say that the extraordinary sophistication of human cultures would not have evolved. William James is sometimes thought to have overstated the point when he appears to assimilate laws of nature to ‘immutable habits’ (in *Principles of Psychology* p. 104) but he remarks more plausibly that habits represent the ‘enormous fly-wheel of society’, and by this he meant that habits are lawlike in the role they play in human life; they are ‘...what keeps us all within the bounds of ordinance’. (See p121).[[4]](#footnote-4) An important reason for why habits are enabling in this way is that once in place they provide the scaffolding needed as a basis for more complex thoughts and actions. For example, they enable the fulfilment of projects and plans that require elaborate skills. Seen in this light those who would claim that habit is undermining of the autonomy of reason must acknowledge that habits are nevertheless indispensable in fulfilling certain rational ends, for instance projects that require complex competencies of various sorts. In this connection, Aristotle famously remarks ‘[a]s a result of building houses well, people will be good house builders; but as a result of doing so badly, they will be bad ones’ (NE II 1, 1103b). He immediately goes on, even more famously, to claim with respect to virtue that whether we are habituated one way or another in our interactions with others makes all the difference to the building of our moral characters.

Habits, *as such*, are neither good nor bad. What makes a habit good or bad is its relation to the agent, and the agent’s enacting that habit and so its further relation to other agents. These agential connections are what ground questions of responsibility for habits. The normativity here is determined according to the deliberation, judgement, and control an agent has in regulating an economy of habits. I say a little more about this below, though I won’t pursue the normative question in any real depth, for it is the features of habits themselves that are the main present concern.

Whether some *specific* habit is good or bad is a separate question from the question whether the state of being a habit-driven creature is good or bad. On this latter question, Proust (1996: 621), for example, referred to habit as an ‘annihilating force’; and one of Beckett’s characters (Vladimir in *Waiting for Godot*) talks about habit as a ‘great deadener’. And as Ravaisson (2008: 6) notes, Kant (1798/1974) was no great fan either, referring to habit as a ‘...physical inner necessitation to continue behaving in the same way...’ Habit, he thought, ‘detracts from our freedom of mind’, and because habits are ‘thoughtless repetitions’, they become ‘ridiculous’. ‘As a rule’, he said, ‘habits are objectionable’. As will become clear, I am more sanguine about habits than these writers, though to be fair to Kant, in the *Metaphysics of Morals* he distinguishes between *habitus* (a free aptitude that facilitates chosen actions), and a habit (*assuetudo*), which is the thing he complains about above, something which does not ‘proceed from freedom’. (See the *Remark* on p.165.)

My take on habit is more at home with the pragmatist conception where habits are not construed as mindlessly repeated events segregated from the embodied cognition of agents; rather, a mutually constituting relationship exists between habit and thought. The idea, roughly, is that intentional states without habits would fail to be coordinated, while habits without at least the potential for intentionality would lack agential direction. (See, e.g. Kilpinen (2009), for description of the pragmatist conception in contrast to the simpler version.)

From skill-based habits of physical prowess to the good habits of thought, habits provide a platform for complexities that would otherwise be beyond us. Playing a piano concerto, riding a motorbike, flying a plane, shooting a basket, performing in a play, presenting an argument all require a level of competence that habits supply. In these cases we outsource control to our habits, thereby freeing up mental space for concentration and attention on other aspects of performance: the dynamics of the music, the slipperiness of the road, the turbulence of the air, the tactics of a blocking opponent, the timing needed to best deliver a line of dialogue, or the anticipation of an objection.

Learning, whether it is a simple task, or a complex one, depends on habit. The novice golfer makes a habit of watching the ball until this is automatic and natural. Children learn manners through habituation, and indeed norms generally depend on internalising certain kinds of thought and behaviour. From important or complex tasks down to the most trivial – such as the boring tasks of domestic life – habits play a central role. Typically they operate automatically, below the level of awareness, not at the behest of beliefs, desires or intentions. Nevertheless, unlike the patella tap kneejerk, we would not say that behaviour which is the product of habit is outside the reach of choice and control. We have, as Pollard (2003: 415-16) points out, ‘intervention control’ over them, though our capacities on this score vary. Habits can rigidify into ways of being that can be escaped only with great and sustained effort. Cases of addiction in its early stages may be like this, as can mannerisms or even, as Dewey (1922) once discussed such overlooked conditions as human posture.[[5]](#footnote-5)

Habits are not confined to behaviour, they include ways of thinking, of perceiving, of feeling, and of willing. First, our thinking is organised in a certain way by the intellect, for example, by deriving propositions from premises already known to be true or from the sciences.[[6]](#footnote-6) Knowledge, then, depends on habit; it comes to us typically when we have repeated the right methods for its acquisition. Second, often our perceptions take time to “gestalt”. Inchoate perceptual content, takes time to settle into a constructed form for re-cognition. This is particularly obvious in cases where perception is a skill, such as perceptual recognition of highly specific forms. In music a good example would be harmonic recognition. Third, people form habits of feeling typically when exposed to triggers for fear, disgust, joy, surprise, contempt and so on. Fourth, we also come to form motivational habits in the presence of environmental cues, such as the aroma of coffee, the sound of music, the lights from a neon sign, and other allures.

The non-behavioural cases – habits ‘in the head’ – tend to be overlooked because habitual actions (the paradigms of habit) are seen as automatic, yet thinking (in particular) is supposed to be a product of a conscious focused manipulation of ideas. That is unfortunate, especially in the light of our intellectual habits, where for example, prosecuting an argument typically requires a focus on the *content* of propositions which, working together, lead to formulating content in other propositions. The focus does not need to rest on the logical rules governing the links that undergird this ‘working together’. Indeed such a focus would distract from the business of making cogent inferences. This internalization, and habituation, from repeated use of truth-preserving argument forms in general strengthens and enhances critical thought.

Though habits in the head seem as pervasive as the behavioral cases I will tend not to discuss them when presenting the account. When I talk about habitual activities I do so focusing mainly on the cases of behavior, and that choice is methodologically driven – the behavioral cases represent paradigms of what habit is supposed to be. It has to be admitted, though, that notwithstanding the claim that there are pure cases of habits in the head – where an intellectual process may take place independently from some bodily procedure – I do not want to be taken as setting up a questionable dualism between those cases and (allegedly) purely behavioral ones in which no thinking takes place. In fact my fifth condition stipulates the requirement that habits be sensitive to Pollard’s intervention control. Interesting questions arise over how such control is enabled, and over the phenomenology involved, but they are questions of the *means by which* attention may be brought to bear in a habit context. *How* this occurs is one question, but I agree that there must be something going on in the head in order to ground sensitivity in the first instance.[[7]](#footnote-7)

Habits can be simple, short-lived, highly circumscribed responses within a situation – so-called motor habits – or they may involve complex activities consisting of continuous long sequences, action-sequences with narrative structure. Consider the former. You turn the water faucet habitually in the same direction every time; you habitually place your hat on the hatstand when you arrive home; you habitually answer the phone with ‘hello’; you always tie shoelaces left shoe first, and so on; motor habits such as these are hard to break because they are *largely* automatic. Hundreds of repeat performances have made sure of that, and consequently breaking such habits is difficult, and that is because the effort required is twofold: a conscious override of an automated process together with efforts to replace it.

Action-sequence habits, in contrast to simple motor habits, chain together complexes of behaviour, as well as the mental habits facilitating the sequence. Brushing one’s teeth, following the route to work in the morning, performing a workout, or practicing a piece of music, each of these exemplify what is at stake. There is some flexibility in the sequence, but not much, if it is truly habitual, since automaticity should be present to some degree. One question here concerns habit individuation. Take a routine like brushing. First, Smith, we might observe, always rinses at the start. Second, we might observe that Smith rinses first, following which he moves to the right upper side, and then the lower right side…and so on. Or, third, we might observe that Smith always brushes after a meal. In these distinctions, a part of a habit (rinsing) can count as a habit; a sequence of actions counts as a habit; or an action-sequence (brushing) is habitually related to some external trigger (a meal). Do we have three habits or one? I will claim that, *qua* brushing, we have one. The meal is not part of the action-sequence habit, it is the trigger, and the fact that Smith rinses first informs us of the temporal position of a part of the action-sequence of brushing. Nevertheless, we can say that Smith is in the habit of rinsing first. We might also say that Smith is in the habit of brushing after a meal, a habit specifiable independently of its internal sequence.

Finally, on a methodological note I take myself to be explicating the concept of habit as it is used in ordinary language, and as it is understood by common sense. I offer an explicative account in order to head off one kind of objection by counterexample that gets raised in these contexts. For the account I offer will list five features abstracted from the key examples, and what I claim is not that each feature thus derived is necessary to our concept of habit (and so the set of five severally sufficient), but rather that they condition our understanding of habit, they explicate it, they improve on ordinary lexical meaning and provide us with something we ought to mean when we talk about habits. In this way I am combining a descriptive definition (one heeding ordinary usage) with a kind of normative stipulation (this is what we ‘ought to mean’).

Does this approach rule out a form of realism about habits? Or in other words, am I offering an account *merely* of the concept – a presentation of habit discourse suitably systematised – without paying due regard for whether this discourse corresponds to some real phenomena in the world? No, that would misunderstand the project. For a further question arises concerning what in the natural world plays the dispositional role set out in the definition. For example, one plausible view of so-called habit memories equates them with what psychologists study as procedural memories.[[8]](#footnote-8) The further question, then, is this: given this conceptual framework for understanding human habits, what are the biological kinds playing the constitutive roles in the putative cases? And as mentioned at the start of this paper, if we think habits are multiply realisable, we ought to think other non human, even non-biological phenomena, are potentially apt realisers. (I discuss some other-animal cases later.)

To elaborate: I am primarily interested in forging an account that first extracts from our habit discourse the five conditions, and then refines the articulation of these conditions through philosophical reflection. In this respect the account starts with the platitudes of common sense understanding. And after all, where else could we start in a case of a concept so thoroughly enmeshed in folk psychology? Finally, in addition to this sense adequacy it is noted that ‘habit’ is an elastic concept. The rationale for stipulating the five features I claim characterise the paradigm is to provide a way of distinguishing the gold standard for what counts as a habit and a lower standard one sees in cases where less than the five are present.[[9]](#footnote-9)

**III. Paradigm Examples and Taxonomy**

In this section I describe some paradigm examples of habits, and a classification that divides the cases into simple/complex, and non-extended/narratively extended. Paradigm, clear and non-contentious cases of habits can be found under the heads of customs, mannerisms, routines, skills, and techniques. Under customs, consider children who are taught to express gratitude with their ‘pleases’ and ‘thankyous’, consider cases of punctuality, consider the eating rituals of different cultures, consider habitual greeting styles, or the behaviours we associate with religious rituals such as (in the West) Easter, Christmas, and so on. Under mannerisms, consider the person who whistles, puts their hands in their pockets, bites their nails, fidgets, sucks their thumb, or twirls their hair and so on. Under routines include hygiene behaviour, tidiness, morning rituals, travel routes, exercise warm ups and fitness regimes, to name some clear cases. And under skills and techniques include the actions within sport – a bowling or pitching action, the tennis serve, or kicking technique – and the actions required for the competent execution of playing music, painting, sculpting and other creative arts. So, for instance, in music the hand movements and formations for chords, scales, or arpeggios, must be automated and made precise to enable a focus on aspects of musicianship – the subtle rhythm changes, the dynamics, the tone colour, or the interpretation.

An important addition to this idea of automation in habit is agential higher order supervision. In the case of some actions – particularly skilled, complex actions, or moral actions – the chance of failing or of diverging from a perceived ideal is ever present, making the need for intervention imperative. Good performers in music are aware of this and practice accordingly. So, for example, in some training programs players are encouraged to remember compositions intellectually, additional to any procedural internalisation. They are not taught to remember the notes intellectually in real time during performance – that would be too much to process. Rather, the intellectualised part of the memory remains “offline”, in case of a slip.[[10]](#footnote-10) The claim that agential higher order supervision of this nature is required, I claim, is weighted commensurately with the normative importance of the activity into which it is integrated. In ethics, for example, it ought to be weighted very highly so that virtuous agents are well regulated.[[11]](#footnote-11)

Based on these examples, habits feature five conditions.[[12]](#footnote-12) I flag these here, and in the next section provide some analysis and defence of each of them.

(1) Habits are actions, thoughts, perceptions, feelings, or motives that are socially shaped.

(2) Habits are acquired through repetition.

(3) Habit acquisition is associated with internal changes within the agent (to body and/or brain), making habit modification or elimination difficult.

(4) Habits are activated by environmental triggers.

(5) Though automatic, habits are sensitive to intervention.

The connection habits bear to competence points to some important distinctions upon which to base our taxonomy of habit. Human behaviour in which skilled motor control requires layered “absorption” of some technical ability requires habituation. By such layering I mean the process in which the skilled agent gradually builds up competence for complex actions. The golf swing, properly executed, requires watching the ball, a certain grip on the club, ball address, posture, backswing and so on. These facets each count as parts of the way one (in a skilful way) habitually swings a golf club, though ‘parts’ here must be understood synchronically, unlike the teeth cleaning example. Take ‘watching the ball’; as a synchronic part of the swing, it is a layering within that habit, not *really* a temporally discrete part of a longer action sequence with narrative extension. One’s competence in this aspect of golf arises from the piecemeal establishment of a certain habit (watching the ball) that comes to form a part of a larger habit (the golf swing).[[13]](#footnote-13) One gains competence by gradually (during practice) inserting layers into a larger whole. Is the golf swing, then, a motor habit? Certainly, but we now introduce a new distinction between simple motor habits and complex motor habits. A simple motor habit contains one layer of action; a complex motor habit contains more than one. This distinction is orthogonal to the distinction between what I am calling *narratively non-extended* habits and *narratively extended* ones. We now have a four-way split between simple habits, complex habits, and these latter two (see the table below).

The importance of habits to competence explains away a difficulty many have noticed about habits, viz., the seeming paradox that they simultaneously free and bind an agent. The paradox, however, is illusory once we notice that habits enable the competence needed for certain activities, and yet built into this competence is an inherent necessitation of one its component parts. To take a simple example: the gymnast who completes a highly demanding complicated routine does so only if she automates much of the sequence. She is free, or at least, enabled, to complete the routine only if she is unfree with respect to the automaticity of one of its parts. Seen like this, habits may bind us in simple ways, but they do so often in the service of enabling more sophisticated ways of being and thinking that are indeed liberty-inducing – in this case the gymnast’s freedom to complete her complicated routine.

 Returning to the classification question, some might dispute whether there are any cases of simple motor habits on the basis that the alleged examples cannot be *described* simply. The test is separability of action-components. Take a candidate for this category just spoken of: watching the ball. Plausibly, this description represents a lowest limit to how simply we may aptly capture what is at stake here, while effectively communicating to the agent what is needed for it. To put it another way, is there a description of an action that is simpler than ‘watch the ball’, and so a component of it, that when performed contributes essentially to it? If not, then we have reached the lower limit. We can call the criterion for simple motor habits, then, *component irreducibility*.

A final comment on our taxonomy: what might count as an example of a simple habit with narrative extension? Following our earlier criterion its simplicity implies component irreducibility, but we require a case with narrative structure. So I suggest cases in which a sequence of simple (component irreducible) actions or thoughts occurs, where the process of contemplation is triggered environmentally and occurs (relatively) automatically. Think here then, perhaps, of Thomas Jefferson’s advice to count to 10 when angry before you speak. It has a fairly minimal narrative structure, but considered at any point in the sequence, there is no simpler way of describing the required element, since numbers are simple.

|  |  |  |
| --- | --- | --- |
|  | Simple | Complex |
| Narratively non-extended | Example: watching the ball | Example: golf swing |
| Narratively extended | Example: counting to 10 | Example: travel route |

**IV. The Account**

For convenience let me re-state the five features here. We then develop a more detailed analysis of each of them.

(1) Habits are actions, thoughts, perceptions, feelings, or motives that are socially shaped.

(2) Habits are acquired through repetition.

(3) Habit acquisition is associated with internal changes within the agent (to body and/or brain), making habit modification or elimination difficult.

(4) Habits are activated by environmental triggers.

(5) Though automatic, habits are sensitive to intervention.

(1) Socially shaped. Somebody might dispute (1) on a couple of grounds. Could not Robinson Crusoe acquire new habits? And if so, would it not then be the case that such habits are shaped in the absence of social forces? My response is to agree that such new habits could be formed in isolation, but Crusoe would bring to that environment a pre-existing social knowledge facilitating their formation. Admittedly this risks trivialising the condition. A better test might be to consider habits formed in nature, say by groups of non-human animals.[[14]](#footnote-14) However, now we risk mistaking mere patterns of behaviour – the causes of which are sourced from instinct – with habits, whose antecedent conditions require repetition and learning. Nevertheless, there is certainly a strong *prima facie* case for thinking that some animal groups – say primates, or dolphins – form habits by learning from their conspecifics.[[15]](#footnote-15) Habits form by repetition and learning, and if a type of behaviour appears habit-like in the absence of this condition it is explained by a disposition of another type. Babies, for example, have never been taught to yawn. This is not a type of behaviour we would call ‘socially shaped’, but is more reflex-like.

The social nature of habits makes them inherently relational. Aristotle emphasised the inculcation of habits in children as a key tool for moral education. Habits can take hold this way (under the influence of others), in addition to the cases in which we ourselves practice a habit. Yet our access to what is made habitual, to the practices themselves, does not depend on the practitioner but what is culturally, conventionally, or communally available. This does not rule out the possibility of creative habits, it simply emphasises that the raw materials for habit formation are there independently of the agents who then use them. It also suggests that we are socially vulnerable to bad habit formation.

(2) Repetition. Habits require habituation, and habituation is the process by which our minds develop the cognitive equipment for (more or less) automated perceiving, feeling, willing, thinking, and acting. The basketballer repeatedly shoots hoops; the musician repeatedly plays scales and arpeggios; the child is repeatedly prompted to share with a sibling; and so on.

To test this feature it seems we can imagine a person who (allegedly) acquires some habit in the absence of repetition, say just upon a single exposure to some stimuli. We can call this the challenge from non-repetition. It is alleged by some, for example, that a single hit of heroin may cause some individuals to be addicted to that substance. These claims are not supported by any study in the addictions field of which I am aware. They are almost certainly mythological, and there are medical reasons to think they are false.[[16]](#footnote-16) Presumably our one-hit allegedly habit-ridden consumer of heroin is physically addicted. But the internal neurological changes required for this are well known to require repeated doses of months or years (Leshner 1997).

Still, although the empirical case is strong for the repetition condition, one might introduce at this point a more exotic example: could a brain injury lead to a capacity in which the mechanism of habit was playing a role? For example, cases of savant abilities, or spontaneously acquired artistic capacities, resulting from brain injury are not unknown. In the case of Pip Taylor – a 49-year-old woman from Liverpool UK – an accident in 2012 causing bruising to the brain apparently led her to possess a relatively sophisticated capacity for artistic drawing. Presumably the ability involved the layered absorption of a technique spoken about earlier, yet without any prior experience of practice. What should we say in regard to this apparent counterexample to the repetition condition? Well I think we have to agree *only* that Pip’s newfound skill builds in the features of habit that might well have been acquired had she been practiced at drawing. However, our linguistic intuitions are now at a loss to connect habit talk with the example. For, obviously we cannot say that Pip’s ability was the result of good habits. Upon viewing her first meritorious drawing we cannot say she got the smooth shading that way only after many attempts at developing that technique. In addition we would not say – indeed could not say, on the basis of her case – that it shows there is no point in practicing some skill because repetition will not bear fruit; or to put it another way, the case certainly does not falsify the slogan ‘practice makes perfect’. And that is precisely because the case is atypical. The case is mildly problematic at worst, a shallow counterexample, fascinating but anomalous, for we are interested here in the typical run of cases.

Or finally, consider a case from science fiction. As depicted in the film *Bladerunner*, Rachel, a replicant human being, is given quasi-memories of a real person and, in virtue of these, has a well-formed capacity to play the piano.[[17]](#footnote-17) Would we say that Rachel’s playing is the product of habit? If so, the repetition condition would seem not to be required for habits. But this seems wrong. Rachel’s capacity is indeed the product of quasi-memories, whose experiential content is not identity-preserving, yet which are responsible for the procedural memories that enable her to play. Rachel, then, we might say, does not have habits, she has quasi-habits. But notice also that such quasi-habits are derivative of ordinary habits, and *those* habits depended on learning and so repetition. So I conclude that the challenge from non-repetition fails.

(3) Habits induce internal changes.

That habits induce internal changes within agents is the claim that habits form a ‘second nature’; it is an ancient idea. Aristotle (quoting Evenus) put it succinctly, linking it to the repetition idea: ‘…at last this thing we practice our own nature is.’ Then the idea is that the habitual actions (thoughts and the rest) must issue from this second nature in order to count as habitual. This second nature is an acquired disposition, and it is through this disposition that habit-behaviour, habit-feeling and so on, must issue. This makes good sense, for to be in the habit of automatically acting a certain way in circumstances, there must be some underlying mechanism possessed by the agent, something enduring within the agent that explains it.[[18]](#footnote-18)

There are two noteworthy aspects accompanying the emergence of habit’s second nature, and they oppose each other. So far I have emphasised habit’s strengthening of the active part of skill and competence. Habit enables and enhances this part of human ability, and it does so partly by relegating something that was formerly effortful, intellectually engaged and reflective to something that is un-thought and spontaneous. The accompaniment to this loss of spontaneity is the deadening and annihilation that Beckett and Proust warn us about. Habituation facilitates complex action while de-commissioning our sense of the parts that make it up. Indeed quite generally habits of life wear down the capacity for sensing its vividness. A highly interesting question is to account for this dual effect: why do habits strengthen action while dulling sense? This question cannot be pursued here, but I suggest an answer along evolutionary lines: the heightened sensations that accompany the acquisition-stage for habits are necessary commensurate with the learning process; as the habit takes hold, the newfound ease with which the actions may be undertaken is accompanied by a reduction in the need for sensed feedback. That habit reduces sense is to be expected if learning can take place.[[19]](#footnote-19)

Habit’s second nature also explains why they are hard to modify or eliminate. The agent must find a way of changing, and the neurobiological changes needed for adjustment of deeply ingrained habits may take many months to take effect.[[20]](#footnote-20) The tried and true method to alter or eliminate habits is through making changes to what one does by rearranging one’s environment or in extreme cases moving to a different environment. An instructive example in this connection comes from the case of heroin-addicted US military personnel returning from Vietnam. In this case, the change to civilian life also brought with it a set of new goals, and a re-acquaintance with friends and family; in other words, whereas before the trauma of war had biased their view of the world towards over-valuing heroin (a drug well known for dulling psychological pain), their view of civilian life opened up possibilities in which heroin was no longer needed to play its role. Consequently the heroin habits of around ninety-five percent of this quite large group quickly ceased.[[21]](#footnote-21)

The acquisition and changeability of habits must, on any naturalistic story, run with the physico-functional changes that accompany them, as the studies in neuroplasticity suggest.[[22]](#footnote-22) Interestingly, William James had made a connection between habit and plasticity as far back as 1890 in his *Principles of Psychology* where he wrote:

Plasticity…means the possession of a structure weak enough to yield to an influence [acquisition], but strong enough not to yield at once [resistance to changeability]. Each relatively stable phase of equilibrium in such a structure is marked by what we might call a new set of habits. Organic matter, especially nervous tissue, seems endowed with a very extraordinary degree of plasticity of this sort (*Principles*, 105).[[23]](#footnote-23)

This last sentence in particular is highly anticipatory of accounts of the (relative) flexibility in neurobiological structures, that capacity for synaptic re-wiring that accompanies adaptations to changed environments where new habits take hold. So, for example, Marc Lewis has recently written about the way the habituation that takes place in addiction is accompanied by such brain responses. These brain changes, he says, ‘…almost always settle into habits.’ What happens in the brain? He says:

New neuronal pathways, and corresponding patterns of thought and behaviour, start off tentative and fluctuating. But after they’ve been activated repeatedly, fledgling pathways get more entrenched, more concretized, and eventually carved in stone, or at least in flesh. Thus brain changes naturally tend to stabilize and crystallize. And if new changes come about, they tend to restabilize. It wouldn’t do to have a brain that fluctuated unpredictably with every passing event. So change and stabilization go together. (Lewis, (2015: 31-2))

An important question related to the modification of the agent resulting from habit possession is habit formation – how does it come about? Although the typical case is conscious practice – active involvement by the agent to develop the habit – it is a mistake to think that the only pathway in habituation is active; the passive development of habits may well be very common. In any case, the following remarks in relation to habit formation should not be taken to imply exclusion of the passive case. In a typical case of active habit formation, then, the idea is that the habit arises in the agent, in the first instance, filtered through some intention, desire, or plan, to automate, normalise, or perfect, the behaviour in question. The aim is to make the behaviour ‘feel natural’, to develop a sense that this is something that is a natural extension…hence, a second nature. Finally, in this connection, it is worth recalling Aristotle’s remark that in so far as one’s actions issue from a second nature they will be better able to maintain that behaviour than someone who must “issue commands” to self manually. Aristotle also remarks that the person whose behaviour is habit-driven in this way delights in the condition, and presumably that is because they have made the condition their own often through dent of hard work. The converse of this is that a bad habit leads to a situation in which one is less able to stop the behaviour, and so a situation in which one is ashamed of it.

(4) Habits are activated by environmental triggers.

Jones habitually feels disgusted by the sight of junk food. Smith habitually is drawn to thinking of her own accomplishments upon hearing of a competitor’s success. Personal attacks on Johnson always strengthen his resolve. Anderson always applauds loudly at concerts. In these examples it is the junk food, a competitor’s success, personal attacks, and concerts that serve as trigger for the habitual activity. The automaticity of habits suggests they do not occupy a reasons-responsive position within an agent’s economy of practical deliberation. This is not to say that habits are either irrational or arational, but to point out that habitual activity occupies a subterranean position, liminal between the controls of reason and forces which bypass its reach. Nevertheless, habits are not random events within the agent, and come to be engaged predictably enough in response to social circumstances.

To see the difficulty of thinking that instances of thought or behaviour might occur habitually in the absence of environmental triggers, let’s try to imagine a case in which an agent habitually tokens a thought, asynchronously with respect to the social environment. Smith, say, decides to form the habit of internally reciting a nursery rhyme in random association with any external cues. The habit of doing so must then operate *automatically*. If Smith, from time to time, actively decides to recite the nursery rhyme, that does not count as habitual action, it counts as intentional action. My contention is that Smith’s project to form such a habit will fail; it could not be properly acquired.

I don’t claim that habits without environmental triggers are nomologically impossible (obviously they are logically possible), just that the onus is on an opponent of this condition to make the case for it, and specifically to do so by presenting a plausible example. Some may be drawn to examples in which so-called biological time clock processes, such as sleep/wake homeostasis, mental alertness, hunger, or heart rhythms habitually occur where the regulation taking place is determined internal to the biological system. But it is a mistake to think these processes do not respond to environmental triggers – think, for instance of the way jetlag undermines the sleep/wake cycle. Moreover, these are examples of autonomic processes, to be assimilated to the same general group as reflexes. They are largely immune from intervention control, just as the patella tap kneejerk is.

(5) Automatic.

 By ‘automatic’ I mean that the habitual activity may proceed without the need for attention and without the need for the exercise of direct agential control. Psychologists sometimes refer to this in terms of the ‘outsourcing of control’ [REF]; this connects to an earlier point concerning the way aspects of performance are “delegated”.[[24]](#footnote-24) In complex habits automaticity is essential so that the layers spoken of earlier can be put in place and relied upon to support other parts of a competent activity. The automaticity of habitual action is thus connected with its effectiveness. William James pointed out that to be efficient in tying one’s shoelaces it is better not to think about what you are doing; and it is platitudinous among musicians that effective performance will be undermined by consciously attempting to process in real time each played phrase. Habit-based action is not willed or intended (at the time), and yet the activity fits with other deliberations about what the agent conceives themselves to be doing. To see the importance of the last point, agents who are asleep do not engage in habitual activities. To see the significance of the first point we only need consider cases where habitual behaviour misfires. Consider the person who turns on a tap that has been cross-connected so that hot water comes out when they expect cold; or consider the driver who comes unstuck driving on the wrong side of the road (suppose they are in a foreign country). Often the programmed nature of behaviour is revealed to us when shifting contexts or cultures, like placing the wrong key in a new lock.

Unlike autonomic processes or reflexes, our habits are amenable to correction. It may sometimes take great efforts to correct well entrenched habits, and sometimes we need to rearrange the environment in order to be effective. We are often jolted to intervene when we notice a particular bad habit interferes with other desires we want to satisfy, or other values, or principles; or worse yet, a very bad habit may disrupt our capacity for self-regulation itself. So, for example, the social smoker may, in a reflective moment, recognise that her smoking is spreading from the social domain into other parts of her life. Since she values good health she is thereby motivated to bring her smoking back under control. Or consider the professional sporting person for whom a bad habit has undermined technique. Recognition of the problem and then attention to how this bad habit has affected the technique facilitates changes to it.

Because habits can be modified or broken through an intervention by an agent, agents bear responsibility for outcomes that are produced wholly or partly as a result of their exercise. Nevertheless, the automatic and learned quality of habits makes them conceptually distinct from one-off intentional actions. The issue cannot be pursued here, but the upshot to this is that we have two countervailing considerations in relation to holding a person responsible in the case of habitual action versus one-off intentional actions. The automaticity of habits (he did it from ‘force of habit’) is a consideration that might mitigate in holding a person responsible; yet such habitual actions are the product of repeated prior instances as we learn, in which case there is deeply ingrained authorship of the action; habitual actions we have cultivated are genuinely our own in a way that one-off actions are not. Seen in that light it may be that for some actions (certainly not all) we bear a degree of responsibility for them otherwise not accounted for if we subtract away the history of their learning. Just how to quantify this degree is an extremely difficult matter; but that question must be put away for another occasion.

**V. Conclusion**

The aim of the present paper has been to provide an explicative account of habit by offering five features that characterize the paradigm examples. Habits are socially shaped dispositions with wide-ranging application, internalised through repetition and learning, enduring, automatic, triggered from without, yet susceptible to control, they enable complexes of thought and behaviour and ground social stability.

Habits, I claimed, are indispensable to social life, in both its constitution and sophistication. Without them, developing the norms governing social action, including moral action, would be psychologically impossible. Yet, habits (or their representative paradigm cases) I argued are relational, we acquire them externally through repetition and learning and we enact them in response to features of the world. New work for the future would put these two ideas together. It would give us a reason to question some orthodox individualist approaches to questions of agency and identity, especially in the construction of those things. What we do and who we are depends crucially on habits, our understanding of their reach, and so of our attitudes towards the role they ought to play in these fundamental areas. But these questions must wait.

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1. Yet habit has been considered in Ancient philosophy (Aristotle), Medieval philosophy (Aquinas), Renaissance philosophy (Montaigne), Early Modern philosophy (Hume), by the pragmatists (Pierce, James, Dewey), and by some European contemporary philosophers (Bergson, Bourdieu, Merleau-Ponty, and Deleuze). [↑](#footnote-ref-1)
2. This discussion has begun elsewhere though; see Wagner and Northoff (2014) who argue that habits can be ‘…seen as a bridge between synchronic and diachronic timescales of a person’s life’. [↑](#footnote-ref-2)
3. See Munte et al (2002). [↑](#footnote-ref-3)
4. James goes on in this section to make a range of claims that arise from thinking habit a ‘conservative agent’, for example, that children of fortune are spared the ‘envious uprisings of the poor’, that James’s own social group is spared invasion by the ‘natives of the desert’, or that different social strata are prevented ‘from mixing’. The surprising nature of these statements is distracting from the more plausible claim available from the idea of a conservative agent, namely, that habits are necessary for a degree of *social stability*. [↑](#footnote-ref-4)
5. The case of addiction is complex. Late stage severe addictions have progressed from habit to a disordered condition such that intervention control by the addicted agent is almost always insufficient to arrest the behaviour. [↑](#footnote-ref-5)
6. Knowledge (or *scientia*), for Aquinas, was thought of as a habit. We get it through grasping propositions in a certain way, as properly organized. Belief content must be grasped using knowledge-generating intellectual tools, such as tested logical methods. See *Summa*, I-2, 49-53. [↑](#footnote-ref-6)
7. I thank an anonymous referee for drawing my attention to the implausibility of maintaining a ‘dubious dualism’ between the behavioral cases and cases of habits in the head. [↑](#footnote-ref-7)
8. Henri Bergson, in his *Matter and Memory* distinguished between image memory and habit memory, the latter being an *action*, not a representation. Other philosophers have distinguished between epistemic states that take a ‘that’ clause and those which qualify how something is to be done: remembering that…vs remembering how. The *locus classicus* here is said to be Gilbert Ryle, *The Concept of Mind*. [↑](#footnote-ref-8)
9. Some borderline cases of habits might be shyness, clumsiness, desultoriness, or mealy-mouthedness. In these cases some natural or physiological feature stubbornly inserts itself into the characteristic. In each case the feature seems to gradually grow within the person, rather than emerge through learning and repetition. One would have to admit that there is some sense in which these are habit-like, and some sense in which they are not; and this is precisely the difficulty. In addition to borderline cases there are cases that do not count but appear as neighbour concepts, such as reflexes, compulsions and (maybe) some phobias and neurotic tendencies. The behaviour here is purely or largely physiological, not the product of repetition and not subject, or easily subject to intervention control. Clear non-cases would be the kneejerk patella tap, growing grey hair, snoring, or (maybe even) obsessive hand-washing. [↑](#footnote-ref-9)
10. Robert Kelley, for example, discusses this explicitly, http://robertkelleyphd.com/home. [↑](#footnote-ref-10)
11. See Cocking and Oakley (2001) for an account of how a person’s *regulative ideals* set the conditions for moral action on both Kantian and Consequentialist accounts of morality. In a version of that account good moral habits would need to be open to a criterion of rightness ‘operating on the agent’s psyche.’ (See p 47) [↑](#footnote-ref-11)
12. Pollard’s account in ‘Habitual Actions’ offers four features of habits, including versions of (2), (3) and (5). He adds an additional feature – habits must be related to the agent in some way, perhaps indirectly (intellectualist), perhaps constitutively. The issue concerning this relation is of course important but I regard it as peripheral to an account of the intrinsic conditions for habits, and so of what we should mean by ‘habit’. [↑](#footnote-ref-12)
13. Layering of habit-parts to build competence has an obvious connection to character formation, and to autonomy itself. Diana Meyers, for example, has argued that autonomy competence depends on building a set of reflective skills. These skills vary in degree and are cultivated and matured across different domains. Meyers, *Self, Society and Personal Choice*, 59–75. This process can be largely re-described in terms of the layering of habit-parts to build virtue-habits, including the habit of self-reflection itself. [↑](#footnote-ref-13)
14. Aristotle famously contrasted virtue-habits with nature. He said ‘...nothing that exists in nature can form a habit contrary to nature. For instance the stone by which nature moves downwards cannot be habituated to move upwards, not even if one tries to train it by throwing it up ten thousand times; nor can fire be habituated to move downwards, nor can anything else that by nature behaves in one way to be trained to behave in another. Neither by nature, then, nor contrary to nature, do the virtues arise in us, rather we adapted by nature to receive them, and are made perfect by habit.’ (Aristotle, NE. Book II, Ch1) [↑](#footnote-ref-14)
15. Care is needed here. Gergely Csibra and Gyorgy Gergely (2009) have argued that generalised pedagogy contains three conditions (communicative intent, joint understanding of reference, and informational content); they term this the *pedagogical learning stance*, and claim it is unique to human beings. The key claim is that for learning to count as domain general those conditions need to be present. I am making the more modest claim that habits may be acquired in a situation-bound way by non-human conspecifics. Some famous examples might include adult meerkats teaching juveniles how to kill scorpions safely (Thornton, Alex & Raihani, ‘Identifying Teaching in Wild Animals’), or adult cheetahs teaching their young to hunt (Caro and Hauser, ‘Is there Teaching in Non-human Animals?’), or nut-cracking, a skilled behaviour, taught to younger chimpanzees by their mothers (Boesch, ‘Teaching Among Wild Chimpanzees’). The only feature of my habit account that these cases *might* call into question is (5), viz., that such habits as learnt here are sensitive to intervention. It all depends on the kind of control needed for intervention and the range of flexibility we allow. [↑](#footnote-ref-15)
16. One does not need even to be a sceptic of the neurobiological (disease) accounts of addiction to recognise that addiction is a process, and habituation here is correlated with brain changes, changes that cannot occur after a single dose. See, for example, David Nutt, *Drugs Without the Hot Air*, or Marc Lewis, *The Biology of Desire*, who explicitly rejects the disease account while offering an account that marries a neurobiological story with a habit account of addiction. [↑](#footnote-ref-16)
17. *Bladerunner* (1982), directed by Ridley Scott. Quasi-memories were defined by Parfit (1984:220), following Shoemaker, ‘Persons and their Pasts’, *passim*. A quasi-memory had by A occurs if A’s memory-like experience of a past personal experience E is caused in the right way by *someone* who experienced E*,* not necessarily A. A quasi-habit would be a habit possessed by A that is caused in the right way by *someone*, not necessarily A, who acquired it. [↑](#footnote-ref-17)
18. A study by Eleanor Maguire et al on London cab drivers is a dramatic demonstration of the way complex habits affect the neurobiology of agents. These drivers take three or four years to become expert at navigating the spaghetti roads of central London. It is a highly cognitively taxing exercise to develop the habits one needs to be an efficient driver. The Maguire study compared the brain MRIs of the participants at the beginning and at the end of their tuition, in order to ascertain whether a correlation existed between their acquired knowledge and their brain states. Lo and behold it was discovered that those who passed their exams exhibited ballooning hippocampi. See Maguire, ‘Navigational-related Structural Change in the Hippocampi of Taxi Drivers’. [↑](#footnote-ref-18)
19. The general problem described here is expressed as the ‘double law of habit’, by Clare Carlisle (2014), following Ravaisson. I gesture here at one manifestation of this general problem. [↑](#footnote-ref-19)
20. On this point see Norman Doidge who is famous for his work on neuroplasticity. In his most recent book he outlines the stages of neuroplastic healing. Doidge, *The Brain’s Way of Healing: Stories of Remarkable Recoveries and Discoveries*, (see Chapter 3). [↑](#footnote-ref-20)
21. See Lee Robins and John Helzer (2010), a fascinating paper which originally appeared in 1977. [↑](#footnote-ref-21)
22. I use ‘run with’ here deliberately vaguely. Supervenience would best capture the relation: no difference in a habit without a difference in the structure of its underlying functional system. I express it in this weaker more promiscuous way to allow for multiple realisability at the subvenient base. [↑](#footnote-ref-22)
23. Quoted in MacMullan, ‘The Flywheel of Society: Habit and Social Meliorism in the Pragmatist Tradition’, p. 236. [↑](#footnote-ref-23)
24. There is another use of ‘automatic’, or ‘automaticity’, arising in forensic psychology that differs from the present usage. There are cases of, for example, homicidal somnambulism where a defence of non-insane automatism may be presented. In these strange and disturbing cases, complex behaviour occurs during sleepwalking phases, to be sure, and so these bodily movements are supported by procedural skills, but what distinguishes the cases from the automaticity proffered here are at least two factors: absence of conscious awareness (as evidenced by the absence of episodic memories for the event), and (so) a lack of the ability for intervention control. [↑](#footnote-ref-24)