

From habits to traces

Experience makes its mark on us in many ways. It leaves traces; it instills habits. A trace, as I define it here, is a quality of the soul or mind which is distinguished by its content, its intentional object. Aristotelian species and Cartesian ideas are traces. A habit I take, following Suárez, to be a quality of the soul which assists in the acts of a power of the soul, enabling them to be performed more easily and promptly. I will use the Latin word *habitus* for habits so understood.

This paper examines, in a preliminary way, the fate of *habitus* in early modern philosophy. In comparing just two authors, Suárez and Descartes, it can only suggest, schematically, how that fate is to be understood. My suggestion is that the role of *habitus* in Suárez’s psychology is occupied in Descartes’ psychology by association, understood mechanistically, and by resolution — the mind’s act of binding itself to be guided by certain judgments. These, being acts of will directed toward ideas, are rather traces than habits. No doubt the history is not so simple as this contrast makes it appear. Already, we will see, in Suárez and Descartes, we must complicate the scheme: in Suárez’s case, by the fact that some *habitus* seem to be expressible as rules; in Descartes’, by phenomena resembling the Suárezian *habitus*. Nevertheless I think the scheme offers a useful first approximation to the early modern history of habit.

1. Suárez on *habitus*.

In the *Disputationes metaphysicæ*, Suárez devotes a number of disputations to the Aristotelian categories, one of which is quality. Following Aristotle he divides quality into four kinds; the first of which consists of *habitus* and *dispositio*. *Dispositio*, a key term for Descartes, is the “order of a thing having parts”, either actual, as in the case of something beautiful, or virtual, as in the order of virtues in the soul. *Habitus* Suárez first defines briefly as “signifying a form which confers ease and promptness of operation”, and later more precisely as “a species of quality proximately ordered to assisting a power in its

operation". He takes note of but sets aside a broader sense of the term, found in Thomas for example, according to which *habitus* denotes any quality which disposes a thing well or ill in its *esse* (42§3no4, 26:611). In this sense, but not in the stricter sense health is a *habitus*.

Habitus in the stricter sense are of two sorts. *Habitus* of the first sort are required by a power in order that it should be conjoined with its objects. Intentional species, which are "like the seeds or instruments of objects by whose means their conjoin their virtue with the cognitive powers" of the soul; by means of species alone are acts of sensing, remembering, and so forth possible. *Habitus* of the second sort are not required for the operations of a power; instead they determine the manner of that operation. They are invoked to explain how it is that certain acts become easier and quicker to perform through repetition. We learn not only by acquiring qualities that represent objects that by their means we come to know; and not only by combining those representations in various ways so as to make judgments and demonstration; we also learn by practice, we acquire skills. In what follows *habitus* will denote only the second of the two sorts just mentioned.

The essence of *habitus* is to assist in the operations of a power. Suárez argues that to do so a *habitus* must be stable (and thus distinct from the operations themselves, which exist only so long as they receive "actual influx of the soul" ceases: 44§1no6, 26:665), and it must inhere in the power itself, from which it is nevertheless distinct.

Habitus need be invoked only to explain only the operations of those powers which exhibit some latitude in their operations, some indifference or indetermination. The acts of inanimate things, for example, are determined entirely by their powers and the objects they act on; nothing additional is required to explain either the act or its manner (no10, 666). It follows that the only powers in which *habitus* reside are the will and the intellect, and with them the sensitive appetite and the iagination or *phantasia* in those creatures that have will and intellect. The will is evidently free; the intellect is indifferent in its operation when evident cognition is lacking or when the relation between premises and conclusion is hard to follow, as in mathematics. Appetite, insofar as it can be governed by will and reason, must also be supposed to exhibit indifference. When, for example, the human good runs contrary to what the senses delight in, *habitus* must intervene so as to decide in favor of one or the

other. For similar reasons, the imagination is said to be capable of acquiring habits.

Higher animals, or *bruta*, share with humans the faculties of appetite and imagination. It might be thought that they too can acquire *habitus*. After all, “sometimes an animal by performing several acts [of the same sort] acquires a facility or virtue for judging an object, concerning which it has no innate virtue or natural instinct” (3§1, 669). Augustine speaks of “custom” (*consuetudo*) in *bruta* (85 *Quæst.*, no. 36); Thomas says of animals that some sort of *habitus* can be attributed to them. Suárez argues that because in animals appetite and imagination are always entirely determined by their objects, there is no need to suppose that those faculties can take on habits. They no more need habits than a stone does in order to fall. What seems like *habitus* is merely a “firmer adherence” of the *phantasma* or species in the imagination. That, together with the object, determines the action of the animal.

Habitus, then, are qualities of those powers of the soul which, because their operations are not entirely determined by their objects or by extrinsic causes, require something additional to explain certain aspects of those operations. That I am capable of judging whether two plus two is four follows from my having an intellect; but that I can do so quickly and easily follows from my having acquired the science of mathematics.

Causes of habitus

Habits, as we know, can be acquired. Practice makes perfect, which is to say, habits seem to be caused, and Suárez holds that they are caused, by acts of the sort they assist in causing. Not only that but they are strengthened by repetition of those acts, and weakened if we cease to perform them. The role of repetition in forming habits, and the role of idleness in weakening them both require explanation.

1. *The cause of habitus is its corresponding act.*

That much was common ground. The precise nature of the effects of *habitus*, and likewise of their causes, was disputed. I will take as given Suárez’s conclusion that the effect of a *habitus* is the act it assists in, and not merely a mode of that act. The cause he also takes to be the act. The act functions as an efficient cause, and not, as Durandus thought as a disposing cause, nor as Buridan thought, as the *via* by which the power in which the *habitus* inheres produces it. In response to certain difficulties about the causation of the

qualities of thing by that thing's own acts, Suárez draws on arguments made elsewhere in the *Disputations*, according to which an immanent act (which is the only sort at issue) is at once an *actio* of its power and a *qualitas*. Acts by which *habitus* are produced do so by virtue of being qualities.

[It would seem that we have *mutual* causation of act and *habitus*. We might now call it a positive feedback loop, especially since repeated acts can strengthen a *habitus*, and thereby incline the corresponding power more strongly to perform them. To remove that difficulty Suárez notes that the *habitus* alone is never the *sufficient* cause of acts; it only assists the power in producing it.]

2. *The role of repetition.*

Experience seems to tell us that habits are acquired only repeated acts (by *consuetudo*). Aristotle in the *Ethics* says that virtues are acquired through teaching and experience, and that it takes time to acquire them. Yet that does not seem possible. If one act won't do, then neither will many. The force of one could be multiplied only if several occurred together. But they do not. Even a virtuoso cannot perform the same piece twice at the same time.

Suárez, following Henry of Ghent, effectively turns that argument on its head. If a first act does nothing to alter the power that produces it, then a second act, confronted with a power still equally "indiposed" to being affected by it, will likewise do nothing. But since acts do induce habits, we must conclude that by just one act a habit may be effected.

Nevertheless practice does make perfect. We know from experience that habits can increase both in intensity and in breadth. A habit is more intense insofar as it inclines its power more strongly and to more intense acts; it is broader insofar as it assists in acts toward a greater range of objects. Charity properly nurtured not only becomes more intense, but also extends from the love of God to joy in the goodness that proceeds from him.

In general the intensity of a *habitus* corresponds to the intensity of the acts that cause it. Like Thomas, Suárez holds that the intensity of a *habitus* can be increased only by more intense acts. If sometimes we observe that acts of equal intensity make a habit more intense, that is because an act does not always bring about a habit whose intensity corresponds to its own. There may be, for example, in the power a disposition contrary to the habit—a relish for food, for example, which is contrary to temperance. Or else the power itself may resist alteration by an act by virtue of its indifference and "the inclinations it has

toward other acts or objects” (§10no13, 693). From indifference, in other words, there arises a kind of inertia.

[The increase of breadth of habits becomes for Suárez the occasion for explaining the “celebrated question” of the unity of habits. First of all, even if increase of breadth can sometimes be explained by supposing that some habits are complexes of qualities, to which more can be adjoined, still we must eventually arrive at qualities which are simple. Suárez holds that those simple qualities must themselves be habits (no23, 701).

How, then, is it possible for a simple habit to be extended to several objects? It can be if those objects all share the same “formal reason”, or if they are all connected by necessity so that “one is virtually contained in another” (no27, 702). If justice applies to a great many objects, and if it is simple, Suárez’s account directs us to look for a single formal reason under which all objects of justice can be subsumed; this turns out to be “saving the equality of each person in his possessions”. Or again since from love there follows, if the thing loved is absent, desire, and if it is possessed, joy, all those qualities of the soul, insofar as they are *habitus*, are “rooted” in the single *habitus* of love (no31, 703).]

3. Decay.

Just as habits grow through use, they decay through disuse. Since Suárez, in agreement here with Thomas, holds that every thing, *quantum est ex se*, “postulates its own conservation”, and since *habitus*, unlike acts, do not depend on the actual influx of their cause to exist, the mere cessation of acts cannot by itself be the cause of their decay. It is at most the occasion. In general qualities are corrupted by their contraries; here *habitus* are corrupted by acts inconsistent with them, or (in the case of imagination and appetite) by the deterioration of the organs their powers require in order to operate. The cessation of the acts that brought about the *habitus* originally merely leaves the way open for corruption to occur.

Summary

To sum up: habits for Suárez are qualities of powers. They perfect those powers both by virtue of completing the determination of acts, and—when they are good habits—by virtue of inclining those powers, which may otherwise be indifferent, toward the ends for which those powers exist. Our appetite is, sadly, often indifferent as between the healthy and the harmful; its end, all the same, is to operate so as to promote health and other things beneficial to us.

Temperance in appetite leads us to perform more easily and promptly those acts which are in fact beneficial.

Nevertheless habits do not represent the objects of the acts they assist in causing, nor the ends promoted by those acts. A habit itself is merely a readiness to perform acts of a specific sort, and the acquisition of a habit, though integral to *scientia* (in the case of intellectual habits) or to acting morally (in the case of moral habits) is not the acquisition of knowledge. It is that by which knowledge is, given our imperfection, translated into acts.

2. Descartes

If in matters of explanation your instincts are Cartesian, you will likely be dissatisfied with the preceding. Explanations deal in mechanisms and laws. Suárez has given us only a description of the phenomena to be explained, or at best conceptual arguments showing how it is possible, for example, given what *habitus* and acts are supposed to be, for a *habitus* to be intensified by repeated acts. The only glimmer of an explanation was in Suárez's treatment of animals: there the "firmer adherence" of the species in memory is said to explain the greater ease of action acquired through practice. It is not my purpose here to adjudicate between Cartesian and Aristotelian natural philosophy, but only to consider how Descartes, with *his* conception of explanation, treats some of the phenomena adduced by Suárez.

Mechanization of habit

The first steps toward the mechanization of habit are taken in the *Treatise on man*. In its treatment of memory, phenomena which are also characteristic of habit are explained in terms of the motions of the animal spirits in sensation and their lasting effects on the brain. The animal spirits that issue from the pineal gland enter the nerves through pores in the interior surface of the brain, which is composed of fibres with intervals between them. By virtue of their motion, the spirits have sufficient force to "enlarge these intervals a bit, and to fold and dispose in various ways the small fibres they encounter in their paths". They trace figures "which are related to those of the objects" of sensation, and as time goes by they do so better and better, "accordingly as their action is stronger, and lasts longer, or is more often repeated" (11:178). By that means the figures thus created in the brain are "in some manner conserved", and can continue to

direct the animal spirits so as to leave impressions on the gland even when the action of the object on the senses has ceased. The fibres acted on by the spirits acquire a disposition “by means of which they can be more easily opened” than before. Descartes compares the surface of brain to a piece of cloth pierced by needles; even if the holes made by the needles close up, still they leave “traces” in the cloth which make the holes easier to open (179).

Association. By this means also the association of images can be explained. If two holes have been opened together several times, and if they “do not have the custom” of being opened separately, then they will both open even if only one of them is acted on by the animal spirits. This “shows how the recollection of one thing can be excited by that of another which was previously impressed on the memory at the same time”. Descartes later explains what we would call involuntary recollection in the presence of those movements of the spirits that account for the passions: the “humors” whose varied movements cause in us various passions point the pineal gland in various directions. If in the part of the brain toward which the gland is directed, “the figure of some particular object is impressed much more distinctly than any other”, the gland cannot but receive the impression made on it by the spirits when they encounter that figure (184). If several figures are impressed in that place, the gland will receive the impressions of all of them, in part or in whole; by this means the “creativity” of the imagination is explained. Thus the indeterminacy or indifference of imagination, on the basis of which Suárez holds that imagination can take on *habitus*, is merely apparent. It is an artifact of ignorance. Imagination, considered as a corporeal power, has no *habitus*.

What applies to memory applies more broadly to the acquisition of habits in animals—i.e. to learned regularities of behavior. In a letter of 1646 to the Marquis of Newcastle, Descartes, responding to the citation of Montaigne and others according to whom animals have thought and understanding, briefly explains how animals can be taught to utter words “even though those words or signs need not be related to any passion” (21 Nov 1646). A magpie that has learned to say hello to its mistress when she arrives, has been made to connect the utterance (*prolation*) of the word to one of its passions, namely the “movement of hoping to eat”; this association will have been produced by giving it some morsel whenever it says hello in the right circumstances. When Descartes speaks here of *hope*, he means not a mode of thought or a passion properly speaking, but rather the movements of the animal

spirits that in both humans and animals characteristically accompany the passion (Alquié 3:695).

Setting aside the question of whether these are fully mechanistic explanations — Descartes was content with them —, what we seem to have is a transposition into more or less mechanistic terms of the doctrine by which Suárez explains the acquisition of traits of behavior in animals. The difference is that *force* by which memories are made to adhere, as Suárez puts it, more or less firmly in the brain is just what Descartes in his physics calls the quantity of motion. [Moreover the figures created in the brain by sensation and passion have no intentional objects. They “intend” their objects only in the way that a clock tells the time: that is, if we attribute objects to them, we do so on the basis of their causal role in producing or being produced by thoughts in the mind.]

Use and mastery of the passions

So far we have agreement in conclusions, if not in arguments. Animals have no *habitus*. But Suárez holds that in humans imagination and appetite, though corporeal, differ specifically from their analogues in animals, and admit of indifference; *habitus* is then invoked for them as for will and intellect to complete the determination of their acts. Descartes effectively denies that there is a difference; in humans, imagination and appetite, taken as corporeal, exhibit no indifference.

Humans certainly acquire habits in the broad sense. The question is whether in Descartes’ psychology there is any need to suppose that *habitus* in Suárez’s restricted sense are required to explain the phenomena, and in particular to explain regularities in behavior.

Association again. It is clear, first of all, that some acquired traits can be explained by an extension of association. In animals, association occurs between impressions in the brain. In humans, some “corporeal actions” are joined with thoughts in such a way that to each action there is a corresponding thought which will occur on the occasion of that action. The *Meditations* argue that God has instituted certain relations of this sort so that from the thoughts produced by certain movements, actions will follow that help preserve the union. These relations are innate.

But we also have the capacity to acquire such relations, whether involuntarily through experience or voluntarily through practice. In the *Passions*, by way of explaining why love is joined with a “gentle heat in the

chest” and with improved digestion, Descartes notes that certain experiences can give rise to enduring relations between corporeal actions and thoughts, and indirectly between one thought and another. Those who have “taken with great aversion some beverage when they were sick cannot eat or drink anything afterward which has a similar taste without having the same aversion; nor can they think of the aversion one has to medicines without having that taste return to their thoughts” (*PA* art107, 11:408; see also art136, 11:428–429). So too when the soul was joined with the body, the first passion it experienced occurred when it encountered “a foodstuff more suited than usual” to maintain the heat of the body, and thus preserve it. The soul thereupon loved that stuff; at the same time the spirits flowed from the brain toward the muscles, which in turn caused the stomach and the intestines to send more of the same stuff toward the heart. The relation that occurred on this occasion between bodily movements and love, and so also those movements, has since then “always accompanied the passion of love”.

Intensity. We can also control the *intensity* of our passions in various ways. New objects, or those that seem to us new, give rise to movements of the spirits in proportion to their novelty. To the force of those movements there corresponds a greater or lesser intensity of wonder. Sometimes wonder is excessive, and leads us to esteem objects more than they deserve. In general wonder decreases with repeated exposure. But if it leads us “to fix our attention only on the first image of the objects presented” to the mind (art78, 11:386), then it “leaves behind a habit (*habitude*) which dispose the soul to fix itself in the same way on all the other objects presented to it, provided that they appear even a little bit new to it”. An excess of wonder, and the stronger fixation of attention that follows from it, can lead to a habit of seeking novelties, an addiction one might say to wonder.

Wonder normally gives rise to a desire for knowledge of its object, and knowledge brings about a decrease in wonder. The habit of excessive admiration would amount to nothing other than the abnormal absence or weakness of that desire. But we might then ask whether combatting excessive wonder requires the formation of a *habitus* toward that desire—a thirst for knowledge, a greater readiness for inquiry. Descartes suggests that those people are given to excessive admiration who, though they have a sufficiently good common sense, nevertheless do not “have a great opinion of their sufficiency” (*suffisance*), or in other words who are diffident about their ability

to acquire knowledge (art77). The natural condition is to have the desire to knowledge, with an intensity proportionate to the perceived novelty of the object. The habit of excessive admiration arises from a judgment that inhibits that desire. Given that judgment and the other qualities of mind required for wonder, we have all we need to explain the susceptibility of such people to wonder. It would seem that there is no need to invoke *habitus*.

Role of judgment. Judgments, then, can control the occurrence and the intensity of passions. In his “general remedy for the passions”, Descartes summarizes the means we have to attain mastery over the passions. The “easiest and most general remedy” for excess of passion is “to remind oneself that everything which is presented to the imagination tends to deceive the soul and to make appear to it reasons that serve to persuade it [to act on the object of the passion in accordance with that passion] stronger than they are, and those that serve to dissuade it weaker”. On that basis we should will ourselves to “consider and follow the reasons contrary to those that the passion represents”, even if they seem weaker (art211, 11:487). To moderate excessive desire, for example, we should consider that only our own thoughts are truly within our control; that judgment will tend to diminish the intensity of desire by putting its objects beyond our certain grasp (art144–146, and already in the *Discours*).

Judgments of this sort, which I will call resolutions, are clearly not *habitus*. They have intentional objects; they are traces rather than habits in Suárez’s sense. As in the case of excessive admiration, to explain the facility of the mind to have various passions, and the intensity of those passions, we need only invoke the circumstances of their production and the judgments by which they are controlled. There is no need for *habitus*.