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COGNITIVE HABITS: DURAND OF ST.-POURÇAIN AND PROSPER DE REGGIO EMILIA ON COGNITIVE HABITS

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ABSTRACT

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Introduction

Once Socrates has thought that *p* or about *O*, he comes to acquire something such that he is then able to think that *p* or about *O* when he wants, and he can, all other things being equal, do this with more ease than he could before.[1] This 'something' that he comes to acquire medieval philosophers called a cognitive habit. According to what I will call the Standard Theory of Habits (STH), a cognitive habit is an acquired qualitative state that the intellect takes on, or, in metaphysical terms, a non-relational (absolute) quality that comes to inhere in the intellect as its subject. Its active cause is either an act of thinking or at least the active causes of an act of thinking, and repeated acts of thinking reinforce this habit; in turn, the habit is at least in part somehow the active cause of subsequent acts of thinking (or an aspect or 'mode' of those acts), explaining both our capacity to think thoughts in the absence of their objects when we want as well as the ease with which we think such thoughts. Hence, according to the STH, Socrates' initial thought about, say, cats produces (or is concomitant with the production of) an absolute quality in Socrates' intellect, a quality that subsequent thoughts of the same sort (thoughts about cats) reinforce. In turn, this quality explains both the fact that Socrates can engage in the same thought that he had engaged in before whenever he wants and also the relative ease with which he elicits such thoughts. Philosophers as different as Thomas Aquinas, John Duns Scotus and William of Ockham maintained this view.[2]

1 In what follows, I will focus on simple acts of thinking (thoughts about *O*) as opposed to complex (propositional) acts of thinking (thoughts that *p*) for sake of clarity. Both sorts of thoughts present different difficulties and puzzles in relation to habits.

2 In Aquinas, see *ST* 1-2.49.1–3; 1.79.6; *DV* 10.2; 19.1; *SCG* 2.74; *Quodl.* 3.9.1; *Sent. De anima* 3.8. For discussion, see Pini, Forthcoming. Aquinas's view is that a habit is the intelligible species (defined elsewhere as a kind of quality) as it exists in the possible intellect in a certain way — neither in potency nor in act, but in a middle way. See especially Sent. 3.14.1, a. 1, qla. 2: "In intellectu autem requiritur ad eius perfectionem quod impressio sui activi sit in eo non

However, at some point in the early 14th century a new view emerged, a view I will call the Novel Theory of Habits (NTH). On this view, a cognitive habit, although acquired, is not an absolute quality that inheres in the intellect; its active cause is not an act of thinking; and it is not in turn the active cause of subsequent acts of thinking. Rather, acts of thinking are passive causes of cognitive habits, and habits are, in turn, mere *per accidens* or *sine qua non* causes of subsequent acts of thinking. Moreover, cognitive habits are not qualitative states of the intellect but rather exist outside the intellect in a certain sensitive power whose job it is to 'show' objects to the intellect whenever we want (henceforth: the ostensive power).[3] It is something on the side of the ostensive power, then, and not on the side of the intellect that explains both the fact that Socrates can think thoughts again whenever he wants and the relative ease with which he does this.

While there is evidence suggesting a number of authors endorsed the NTH, to date I have been able to locate only two of them, namely Durand of St-Pourçain and Prosper de Reggio Emilia (the former slightly earlier than the latter).[4] What motivated Durand and Prosper to get off the wagon? Why the novelty? I hope this paper will provide something by way of an answer to these

solum per modum passionis sed etiam per modum qualitatis et formae connaturalis perfectae, et hanc formam habitum dicimus." For Aquinas, the antecedent act of thinking is not the active cause of the habit; rather, a habit is just an intelligible species and so the active cause will be whatever goes into the production of an intelligible species, namely, the agent intellect together with the object (and phantasms and so forth). On the causal role of habits, see Sent. 3.23.1 and 2.27.1. In Scotus, see *Ord.* 1.17.1–2 and *Collationes* q. 6. Ockham holds the more extreme view that a habit is the efficient cause of the act and that the act the efficient cause of the habit. See *Summ. Phil. Nat.* 3.17–23, *Brevis summa libri Physicorum* 7.4; *Exp. Phys.* 7.4, esp. sec. 7; *Rep.* 3.11–12; *QQ. variae* 2, 6.10, 6.11, dub. 1, 7; *Quodl.* 1.18, 2.16, 3.20–2.

3 Durand, Prosper and their opponents use various terms to characterize the ostensive power. See footnote 7 below.

4 Cajetan (*ST* 1.2.49.3) and Suàrez (*DM* 44) both discuss the view, citing Durand by name as its core proponent. There is evidence that others maintained this view before Durand: Durand presents the view as the view of 'certain moderns'; Peter of Palude (Sent. 3.23.1, 3a opinio), Thomas of Argentina (Sent. 3.23.1), Hervaeus Natalis (*Quodl.* 1.13, 3.7, 5.12–21) and John Duns Scotus (*Ord.* 1.17.1–2 and *Collationes* q. 6) present positions that approximate Durand's position. For more on the antecedents to Durand's position, see footnote 9 below. For Durand's dates and career, see Schabel, Friedman, and Balcoyiannopoulou, 2001 and Hartman, 2011 and the references therein. For Prosper, who is far less well-known, see Courtenay, 2007 and Pelzer, 1928. Durand defends the view in Sent. 2.33.1 and 3.23.1–4 (for [A/B] I have used Paris Bibl. Nat., lat. 12330; for [C] I have used Venice 1517 and Paris 1517); *Tractatus de habitibus* qq. 1–3 (ed. Takada 1963), q. 4 (ed. Koch 1930), and q. 5 (Vaticanus lat. 1086 f. 192vb–193ra and Vaticanus lat. 1076 f. 9rb–va); and *De subiecto virtutum moralium* (in Vaticanus lat. 1086 f. 186ra). Prosper defends the view in the prologue to his *Sentences*, in *pars* one, *quaestiones* five and six, as well as *pars* three, *quaestio* three. His unfinished commentary on the *Sentences* of Peter Lombard is contained in Vaticanus lat. 1086. According to Courtenay, the *terminus post quem* for this text (a *redaction* it would seem) is 1318, since Prosper, who read his *Sentences* in Paris before 1315, cites John Paignote who was regent in 1318; the *terminus ante quem* is 1323, since Thomas Aquinas is never referred to as 'saint'. Prosper states in his dedication that the content is derived from his earlier stay in Paris.

questions. While there are several interesting differences between the NTH and the STH, I will focus on the issue of the location of habits: according to the STH, habits are to be located in the intellect, a thesis proponents of the NTH deny. I will first look at an argument Durand and Prosper put forward in defense of their view, and then present some objections to it raised by an anonymous proponent of the STH. In the second section, I will speculate about what might be at stake.

The Location Thesis

In his *Tractatus de habitibus* (henceforth: *TDH*), Durand sounds out the ringing declaration that

> it can be held as probable that habits are not in the intellect or any cognitive power as such… Rather, habits are only in the power that shows objects to the intellect… (4.8, p. 50)[5]

And Prosper opens the body of a *quaestio* dedicated to the topic (*Sent*. Prol. 3.3.1, which asks "whether habits are in the intellect as in a subject") with the admission that

5 "Primo modo potest teneri probabiliter quod in intellectu non sit aliquis habitus nec in aliqua potentia cognitiva ut sic [...] sed solum in potentia quae ostendit obiectum intellectui[...]" Durand goes on to admit that we do *attribute* habits to the intellect owing to the fact that the acts which the habit regulates are acts of the intellect. However, attribution is not the same as claiming that such habits are in the intellect as in a subject. *TDH* 4.8, p. 53: "… in intellectu et in appetitu sensitivo vel intellectivo ponendus est habitus attributive, quia cum habitus non quaeratur nisi propter actum, ut promptius et facilius eliciatur, illi potentiae attribuendus est habitus propter cuius actum principaliter quaeritur; sed intellectus et appetitus principaliter sunt illae potentiae propter quarum actus quaeruntur habitus. Quare etc." On the idea that a habit is '*attributive*' and not '*subiective*' in the intellect, see p. 53–55 and *TDH* 4.9, p. 68–69. Prosper also draws the distinction in, e.g., Sent. Prol. 3.3.1 at f. 63ra–63vb.

> practically everyone says that habitual scientific knowledge is formally in the possible intellect as in a subject… However, the total opposite strikes me as the case… (VATICANUS *lat.* 1086, f. 62va)[6]

For both Durand and Prosper intellectual habits (at least) are not in the intellect as their subject.[7] Rather, such habits are located outside the intellect, in what I will call the ostensive power, a power of the sensitive part of the soul whose function it is to store and present items to the intellect.[8] While this power is sometimes called the imaginative power, it is important to stress one of its core features, namely, that it is not a *cognitive* power as such. To say that it is not a cognitive power is to say that it is not intentional — its act does not have a object to which it is directed. If the ostensive power were itself a cognitive power, then it would require an ostensive power to present to it its (intentional) object, and so there would be an infinite regress among ostensive powers.[9]

Durand and Prosper each supply seven arguments in defense of this — admittedly minority — position, with some overlap.[10] Durand tells us that this position had been put forward by certain

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6 "[..] respondent quasi communiter omnes quod scientia quaelibet habitualis est in intellectu possibili formaliter et subiective[...] Mihi autem [...] videtur totum contrarium."

7 Durand and Prosper draw a broad division between intellectual habits, on the one hand, and practical or moral habits, on the other. Intellectual habits are sometimes called speculative habits (*habitus speculativi*), such as our habits associated with geometry, and these were usually located in the intellect, whereas practical and moral habits (*habitus practici et morales)* deal with the moral virtues and prudence. See *TDH* 4.8, p. 50. While Durand and Prosper both maintain that moral and practical habits are not to be located in the intellect (or the will), in what follows I will be focused on intellectual (or to avoid confusion: cognitive) habits.

8 Durand and Prosper use various terms here, e.g. 'memorativa' or 'memoria' (*TDH* 4.8, p. 42, 43, 44, 45 [3 times]); 'repraesentativa' or 'repraesentans' (*TDH* 4.8, p. 42, 43, 50 [3 times], 51 [bis], 56, 57; Sent. Prol. 3.3.1, f. 62vb, 64va); 'praesentans' (*TDH* 4.8, p. 45; Sent. Prol. 3.3.1, f. 62va [bis], 64ra, 64rb, 64va, 66vb, 67ra [bis]); 'proponens' (*TDH* 4.8, p. 53); 'ostendens' (*TDH* 4.8, p. 49, 50 [bis], 53, 54, 56; Sent. Prol. 3.3.1, f. 66va); 'imaginativa' or 'imaginatio' (Sent. Prol. 3.3.2 [multiple times]); 'offerans' (Sent. Prol. 3.3.1, f. 67ra). Prosper goes on to locate its organ in the posterior part of the first ventricule of the brain (*in posteriori parte primi ventriculi cerebri*) — even providing us with an illustration in his student notebook! See especially Sent. Prol. 3.3.2, which asks "Utrum habitus theologiae sit in potentia sensitiva vel quae sit illa potentia sensitiva in qua ponitur." This particular *quaestio* is also available in an early modern printing: *Opusculum perutile de cognitione animae et eius potentiis Augustini de Anchona cum quadam quaestione Prosperi de Reggio* (Bologna 1503).

9 See, e.g., *TDH* 4.8, p. 53: "Et quia illud est potentia ostendente obiectum, ut declaratum est, quae ut sic non est cognitiva (alioquin esset processus in infinitum in hiis quae ostendunt obiectum ad absententiam realem ipsorum), ideo nec universale nec particulare est eius obiectum, cum nullius sit cognitiva." See also p. 50. In Prosper, see Sent. Prol. 3.3.1, f. 66va: "… cum <habitus> sit in potentia sensitiva ostendente obiectum quae ut sic non est cognitiva nec universale nec particulare est eius obiectum cognitive sed solum repraesentative, habet enim obiectum quod repraesentat intellectui."

10 Of the seven arguments Prosper gives (f. 60va–62va), one (f. 60va–61ra) is unique; the rest are either verbatim or paraphrases of Durand's arguments. Durand's *TDH* is included in Prosper's

contemporaries *(aliqui moderni*), but I have not been able to find an earlier proponent.[11] In what follows, I want to focus on just one of these, which I will call *the master argument*. It appeals to a kind of razor, which I will call Prosper's razor:

> We should not countenance anything in the intellect in vain. (f. 60va)[12]

If habits are to be located in the intellect, then we must have a reason for putting them there. Now, as Durand puts it, the only reason to maintain that there are habits in the intellect is because one also maintains that there must be something in the intellect in order to explain (i) its determination with respect to its act or (ii) the relative ease with which it acts. However, we don't need to maintain that there is something in the intellect in order to explain (i) or (ii). Ergo etc.[13] If

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notebook in Vaticanus lat. 1086. Durand presents six arguments as '*motiva*' and a seventh as a more general argument (p. 42–48).

11 The traditional proponent of the view that habits are not in the intellect was Avicenna (see here Aquinas's various discussions in footnote 2 above). In reporting Durand's position, the anonymous author of *Quaestio* "Utrum habitus acquisitus…" writes on pp. 70–71: "Quidam tractantes de ista materia dicunt et scribunt quod in intellectu non est aliquis habitus subiective, quorum positionem alii posteriores recitant et approbant, dicentes quod nec in intellectu nec in aliqua potentia cognitiva ut cognitiva est aliquid habitus subiective…" According to J. Koch (Koch, 1927, p. 143) the '*quidem*' here is Godfrey of Fontaines, pointing us to Vaticanus lat. 1072, f. 239v–240v (i.e. *Quodl.* 14.3, p. 340–6 [codex *R* in PhB 5]). In *Quodl.* 14.3, in his reply to the fifth objection — that justice is not general or common since it is in the sensitive appetite which peddles only in particulars — Godfrey does defend the thesis that "virtutes omnes morales sunt in appetitu sensitivo" (p. 341). However, Godfrey admits (*constat*) that prudence, a "habitus intellectivus cognoscitivus … principaliter est in intellectu" (p. 341) and two pages later (p. 343) he recognizes and seems to reject the alternative (the view Durand champions). Moreover, none of the seven arguments found in *TDH* are in *Quodl.* 14.3. Godfrey does allude to a separate discussion on the topic (p. 342) which I have not been able to locate it. For discussion on this point, see Wippel, 2007, p. 318, fn. 58. For discussion of the fifth objection and Godfrey's reply, see pp. 317-20.

12 "… nihil in intellectu ponendum est frustra…"

13 *TDH* 4.8, p. 42: "Si aliquis habitus esset in intellectu subiective, hoc esset propter determinationem eius ad actum vel propter facilitatem; sed propter neutrum istorum est ponendus talis habitus in intellectu; ergo nullo modo." ibid., p. 51: "Et ideo propter determinationem vel facilitatem non oportet in intellectu vel quibuscumque potentiis cognitivis ponere habitum subiective…" *TDH* 4.6, p. 32: "… quia habitus non requiritur nisi propter determinationem potentiae ad actum vel propter facilitatem, ut patet ex praecedentibus; sed propter neutrum istorum est ponendus habitus in appetitu sensitivo; ergo nullo modo." *TDH* 4.4, p. 20–21: "Ubicumque in potentia oboediente rationi ex frequentatione actuum generatur facilitas et determinatio ad actum, ibi oportet ponere habitum; sed in praedictis viribus ex frequentatione actuum generatur facilitas et determinatio ad actum; ergo etc. Maior patet ex duplici definitione habitus prius posita quarum una dicit quod habitus est quo quis potest uti cum voluerit; et sic habitus ponit facilitatem et ob<p. 21>oedientiam ad rationem supponit; alia vero dicit quod habitus est quo quis disponitur bene vel male; et sic habitus ponit determinationem." For Prosper's version, see Sent. Prol. 3.3.1, f. 60va–vb. See also the presentation of the argument in ANONYMUS THOMISTA, *Quaestio* "Utrum habitus acquisitus…" p. 70: "… cum propter nihil aliud ponatur habitus nisi ut per ipsum potentia

a cognitive power's determination with respect to its act totally depends upon something else, then that power does not need something in it in order to explain its determination. However, the intellect's determination with respect to its act totally depends upon something else: the object presented to it by the ostensive power. Likewise with ease: the relative ease with which the intellect elicits its act totally depends upon the relative ease with which the ostensive power presents to it its objects.[14]

The idea, then, seems to be that the intellect at least is such that the ease with which it elicits its acts and the fact that it elicits a determinate act is a function of the ease with which a power on the side of the sensitive soul shows to it objects and which objects it shows to it.[15] Now, 'determination' is a fishy term, and a word on its use here is in order. What does it mean to say that *X* determines *Y* (the intellect, in this case) with respect to its act? One thing that this might mean is that *X* causes (in some sense of the term 'cause') the intellect to elicit its act. Another thing that it might mean is something like what we mean when we say that something fixes the content of the mental act: I am thinking about cats and not dogs because *X* where *X* is a kind of representation of cats and not dogs.[16] We might have one story about what causes the intellect to elicit its act and some other story about what fixes the content of that act; or it might be the case that the same item that causes the act also fixes the content of the act. (Prosper, in fact, splits

determinetur faciliter ad actum, illa potentiae quae quantum ad sui determinationem et facilitatem totaliter dependet ex altero non indiget habitu ipsam informante. Sed intellectus ad cuius actum primo et immediate ordinantur habitus intellectuales, et vires appetitivae tam intellectuales tam sensitivae quarum actus primo respiciunt habitus morales totaliter dependent ex altero quantum ad sui determinationem et facilitatem, scilicet ex viribus sensitivis apprehensivis per quas tam intellectui quam appetitui cuicumque repraesentatur obiectum per quod praesentatum et potentia determinatur et sine ulla difficultate procedit in actum proprium. Ergo in dictis potentiis non est ponendus aliquis habitus subiective sed solum in potentiis sensitivis apprehensivis interioribus, scilicet imaginativa vel aestimativa vel memorativa."

14 *TDH* 4.8, p. 42: "Illud cuius determinatio et facilitas ad actum dependet totaliter ex altero non requirit propter ista habitum in seipso; sed determinatio intellectus ad actum suum et facilitas ad eumdem dependet totaliter ex altero, scilicet ex potentia memorativa vel repraesentativa obiecti; ergo etc." ibid., p. 51: "… omnis determinatio potentiae cognitivae dependent primo ex modo repraesentandi obiectum cuius cognitio quaeritur; et ex tali modo frequentato causatur facilitas prorumpendi in similem actum repraesentandi. Posita autem determinatione per primum modum repraesentandi obiectum et ea firmata per replicationem actuum habetur non solum determinatio sed facilitas ad similem actum repraesentandi, quibus existentibus ex parte repraesentantis habetur determinatio et facilitas ex parte intellectus, qui secundum se natus est determinari per obiectum nec de se habet aliquam indispositionem ad quemcumque actum, cum sit sicut tabula rasa. Et ideo propter determinationem vel facilitatem non oportet in intellectu vel quibuscumque potentiis cognitivis ponere habitum subiective, sed solum in illa quae repraesentat obiectum, dummodo ipsa subsist imperio intellectus et voluntatis quoad motionem et repraesentationem obiecti, quia aliter non consideraremus secundum habitum quando vellemus quod tamen ponitur in ratione habitus." See also PROSPER DE REGGIO EMILIA, Sent. Prol. 3.3.1, f. 60va–vb; 1.6, f. 37ra–b.

15 *TDH* 4.8, p. 42–43: "… quia ex hoc quod obiectum intellectus repraesentatur ei determinato modo, determinatur intellectus ad vere <p. 43> vel false intelligendum. Si enim proponantur

these two features out in one version of the master argument.)[17]

The upshot here is that however we take 'determination', Durand and Prosper maintain that what determines the intellect to elicit a determinate act (a thought about cats, say, rather than dogs) is something outside the intellect: the intellect is determined to think about whatever is presented to it by way of the ostensive power. As Durand puts it:

> With respect to the determination and ease of the intellect, the determination and ease of the powers that are required in order to represent the object are sufficient.[18]

Since a habit is postulated in order to explain the determination of the intellect, and since the determination of the intellect is a function of something on the side of the ostensive power, and not something on the side of the intellect, we ought to suppose that habits are not in the intellect but rather in the ostensive power as in a subject.

The Arguments from the Anonymous Thomist

To get a better idea of what Durand and Prosper have in mind, I think it might be useful to look at the sort of reaction that the NTH received from proponents of the STH.[19] As part of his edition of the 4th question of Durand's *TDH*, Josef Koch edited a *quaestio* he found prepended to it in ERFURT, *Amplon.* F369 (f. 82ra–83ra). The anonymous author of this *quaestio* — which asks "whether we should suppose that acquired intellectual and moral habits are in that power as in a subject whose act they primarily and directly concern"[20] — attacks Durand's position, quoting

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intellectui principia per se nota et sub eis gradatim accipiantur ea quae sunt eis per se connexa, determinatur intellectus ad cognitionem veri et scientifice. Si vero proponantur principia non per se nota, sed dubia, ut per sillogismum dialecticum vel apparentia et non-existentia, ut fit per sillogismum sophisticum determinatur intellectus ad opinandum vel ad erronee sentiendum; et cum ista ab alio accepta vel per nos inventa firmantur in memoria nostra sensitiva facillimum est intellectum exire in actus consimiles."

16 This way of putting the point leaves open the precise story we will tell here as to representationality. We might suppose that *X* is a representation of cats in virtue of the fact that it is a kind of image, form, *species* or likeness of cats (and not dogs) that, once possessed, somehow fixes the content of the act; or we might suppose that *X* is a representation (and so fixes the content of the act) in virtue of the fact that *X* caused the act (and not dogs). As I have argued elsewhere, Durand maintains the latter view, with some qualification concerning the term 'cause'. See Hartman, 2013 and Hartman, 2014.

17 See Sent. Prol. 3.3.1, f. 64va–vb:: "… quia aut poneretur propter habilitatem potentiae vel propter determinationem ad actum vel propter repraesentationem obiecti vel ut potentia delectabiliter operetur." The object is sufficient for the intellect's determination, and the *species* (in sense) is sufficient as a representation of the object.

18 *TDH* 4.8, p. 43: "Videtur ergo quod ad determinationem seu facilitatem intellectus sufficiat determinatio et facilitas virium quae requiruntur ad repraesentationem obiecti."

19 Durand and Prosper present their positions very much in negative terms — as critiques of the STH — and their own positive proposals are often left vague. The bulk of Prosper's Sent. Prol. 3.3.1, for instance, is made up of 27(!) arguments in defense of the STH together with his careful response to each of them.

20 "Utrum habitus acquisitus intellectualis vel moralis sit ponendus in illa potentia subiective

him verbatim. Following Koch, I will call him a Certain Anonymous Thomist (*Thomista quidam anonymus*), or Cat, for short.[21]

Cat considers the master argument, and he rejects its minor premise -- that the intellect is sufficiently determined with respect to its ease and determination by the ostensive power. It is true, he notes, that if a cognitive power is such that its determination and ease totally depend upon something else, then one does not need to posit a habit in that power. Hence, Cat agrees, there are no habits in the external sensitive powers, for these totally depend with respect to their determination and ease upon present sensible qualities.[22] However, the intellect is such that the ease with which it elicits its acts and its determination does not totally depend upon something else (*ex alio*); rather such explananda depend upon the intellect itself (*ex se*) — a difference in ease or determination is explained --- at least sometimes --- by appeal to a difference on the side of the intellect.[23]

Cat adduces the following argument in defense of this idea.

> Variation to the intellect isn't totally explained by appeal to the imagination which presents to the intellect its proper object [i.e. the ostensive power], for if it were, then there could be no variation to the intellect without an antecedent variation to the

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cuius actum primo et immediate respicit."

21 Cat tells us that he wishes to defend the "common doctrine" (i.e. Aquinas's position) on p. 73: "Sequendo communem doctrinam dicendum est quod habitus intellectuales sunt subiective in intellectu et morales in appetitu." For Aquinas's position on habits, see the references in footnote 2 above. On the anonymous author's identity, see Koch's introduction (p. 6) to his edition of *TDH* 4.8 as well as Koch, 1927, pp. 142–3. A. Pelzer (Pelzer, 1922, p. 238) had suggested that the author might be Peter of Palude, a thesis Koch rejects on the grounds that (a) there is no evidence in Palude's Sent. 3.23 and (b) the criticism is "zu scharfsinnig für Petrus."

22 ANONYMUS THOMISTA, *Quaestio* "Utrum habitus acquisitus…" p. 74–5: "… potentiae sensitivae interiores non determinant intellectum ad actum suum eo modo quo visibile determinat visum ad actum videndi, quia non eo modo praesentant obiectum suum intellectui sensus interiores quo obiciens corpus coloratum visui repraesentat sibi proprium suum obiectum. Nam color existens in corpore obiecto vel <p. 75> supposito est proprium obiectum visus in quod potentia visiva primo et directe fertur… Et ideo contingit quod sensibili praesentato sensui exteriori non solum faciliter sed etiam necessario consequitur actus sentiendi, quia videlicet illud tamquam proprium obiectum talis potentiae est sufficienter motivum ipsius."

23 ibid., p. 73 (emph. mine): "Omnis potentia se extendens ad multos actus indeterminate cui *ex se* competit quod in aliquos illorum actuum quandoque non possit sine difficultate et tarditate et quandoque prorumpat in eosdem faciliter, expedite et prompte, necessario variatur secundum aliquid existens in ea formaliter. Et dico '*ex se*' quia si varietas secundum difficultatem et facilitatem, tarditatem et promptitudinem ad actus suos sibi competeret *ex alio*, totaliter sufficeret variatio in illo; sed si sibi competat *ex se*, oportet quod varietur in se vel secundum essentiam suam vel secundum aliquid receptum in illa. Sed intellectus et uterque appetitus sunt potentiae quaedam indeterminate se extendentes ad multos actus, ita quod in aliquos illorum quandoque non possit nisi cum difficultate et tarditate, quandoque autem possit in eosdem faciliter et prompte. Et hoc competit sibi *secundum se*. Ergo etc."

> imagination. But the consequent is false. (p. 76)[24]

(Cat uses the term 'imagination' to pick out the role that the ostensive power performs.)[25] Call the consequent here — that there can't be an intellectual difference (i.e. a variation to the intellect) without an antecedent physical difference (i.e. a variation to the imagination) — *the dependence thesis*; call its denial *the independence thesis*.[26]

Cat goes on to adduce two arguments in defense of the independence thesis, that is, the view that there can be variation on the side of the intellect even if there is no antecedent variation outside the intellect. The first appeals to the intellect's agency — the intellect is capable of performing an action even if everything outside the intellect (including the phantasms in the imagination or ostensive power) remains the same. He writes:

> The imagination might form the phantasms associated with some demonstrable conclusion with equal speed and ease, yet the intellect, which before did not assent to this conclusion very quickly and without too much hesitation, will, once it has performed an actual deduction, assent to it very quickly and with less hesitation. (p. 76)[27]

If we were to freeze, so to speak, everything outside the intellect, the intellect could, according to Cat, still perform an actual deduction on materials Socrates had previously acquired. Now, this action, since it is itself a cognitive act, would generate a cognitive habit associated with it (or reinforce one already present). But since, *ex hypothesi*, everything is the same outside the intellect, yet there is a difference on the side of the intellect — the relative ease with which it elicits its act after repeated actual deductions — we ought to locate the habit that explains such a difference in ease in the intellect and not in something outside the intellect. Call this *the agency argument*: the fact that the intellect is capable of some agency over and above the ostensive power entails that the intellect is also capable of developing cognitive habits.

While the agency argument has as its target the relative ease with which the intellect elicits its

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24 "… talis variatio non competit intellectui totaliter ex parte imaginativae per quam praesentatur sibi proprium obiectum; si enim hoc conveniret intellectui totaliter ratione phantasiae, tunc non posset esse talis varietas in intellectu nisi variata illa. Consequens est falsum."

25 For Durand, at least, the ostensive power is not the same as the imagination, for the imagination has its own function and is a cognitive power as such, whereas the ostensive power is not a cognitive power as such. See the discussion above about the ostensive power, footnote 7 above.

26 I don't want too much weight to be placed on the term 'physical' here, for there is an independent, and complicated, question of how to translate our contemporary talk of 'mental/physical' into medieval debates. However, all parties in this debate agreed that the intellect is an immaterial entity, whereas the ostensive power is not, for it is something that exists in the sensitive part of the soul. Hence, we can take 'physical' to mean, at least, what is not immaterial, or, even more carefully, what is not the intellect or in the intellect.

27 "… aeque prompte et faciliter formatis phantasmatibus terminorum alicuius conclusionis demonstrabilis, intellectus, qui illi conclusioni prompte et firmiter non assentit antequam sit actualiter ex principiis deducta, post actualem deductionem assentit prompte et firmiter."

act, the second argument that Cat adduces primarily concerns the intellect's determination with respect to its act. According to Durand (and Prosper too), the intellect is determined with respect to its act owing to something outside of it, namely what the ostensive power presents to it. If the ostensive power presents a cat (presumably in the form of a phantasm), the intellect will think about cats, and so on. Now, in the case of complex acts — the sort involved in deductions, for instance — the ostensive power presents certain objects in a certain order. So if Socrates thinks certain complex thoughts easier than others, this is owing to the fact that the stored phantasms (or *species*) are more quickly presented to the intellect by the ostensive power in a certain order – and this is what a cognitive habit explains.[28] As Cat puts their idea, "the determination of a [cognitive] power is from the way objects are shown to it (*ex modo praesentandi obiecti*); in the case of the intellect, this 'way' just is the ordered formation of *species*" (p. 77).[29] In the case of sight, the visive power (the power to see) is determined to see a certain color owing to the presence of that color (a visible object). In the case of the intellect, its determination is owing to whatever object the ostensive power (or the imagination) presents to it. Now, the ostensive power (or the imagination) can (through training) come to have its phantasms structured into a certain 'ordered formation', and so it is that one can be said to be in a position to elicit certain (determinate) thoughts in a certain order rather than others and in some other order.

However, Cat demurs,

> this ordering of the *species* in imagination — of the sort required in a demonstration that causes a scientific habit — is not something imagination can do on its own, nor is it owing to a change in the will except insofar as the will is directed by the intellect. The reason there is such an ordering in the first place is the intellect, for the imagination can never perform the act in virtue of which the *species* in it come to have a certain order unless the intellect performs a more basic act first. (p. 77–78)[30]

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28 DURANDUS DE SANCTO PORCIANO, *TDH* , p. 56: "Propter hoc autem non oportet ponere aliquod novum subiective in intellectu, sed sufficit quod in potentia repraesentativa obiecti sit facta ordinata impressio scibilium prius cognitorum et firmata, et quod illa moveatur ad repraesentandum ea intellectui cum voluerit; tunc enim intelligimus cum volumus quod prius non poteramus." Prosper even seems to anticipate this objection. See 3.3.1, f. 59va: "… stante perfecta ordinatione phantasmatum adhuc potest intellectus errare; ergo adhuc requiritur habitus formaliter in intellectu." See also f. 64va–vb and 3.3.2.

29 "… determinatio potentiae est ex modo praesentandi obiectum qui modus quoad intellectum est ordinata formatio specierum etc." See also ibid., p. 71: "Omnis determinatio potentiae cognitivae est primo ex modo repraesentandi obiectum cuius cognitio quaeritur. Qui modus in intellectu est secundum eos ordinata formatio specierum in viribus sensitivis apprehensivis interioribus, et ex tali modo frequentato causatur in potentia repraesentativa facilitas prorumpendi in similem actum repraesentandi. Quibus determinatione et facilitate positis ex parte potentiae repraesentantis, habetur determinatio et facilitas ex parte intellectus, qui secundum se natus est determinari per obiectum nec secundum se habet aliquam indispositionem ad quemcumque actum, cum sit sicut tabula rasa."

30 "… ordinatio specierum in phantasia qualis requiritur ad processum demonstrativum causantem habitum scientiae, non potest competere phantasiae secundum se nec ex motione voluntatis nisi prout dirigitur ab intellectu. Et ideo ratio a qua est talis ordinatio primo et

The idea here is that the ostensive power (or the imagination) is incapable of organizing the phantasms (or *species*) on its own; rather it requires the intellect to organize the phantasms. Hence, this more basic act by which the intellect organizes the phantasms in the imagination, as it is a cognitive act, should generate a cognitive habit associated with it in the intellect (in addition to, perhaps, the habit generated in the imagination).[31] Call this *the ordered-formation argument*.

With both arguments, Cat's aim is to point out that there is a cognitive act that the intellect elicits independent from the ostensive power and what the ostensive power presents to it: in the first case, this is an actual deduction on material already present to it; in the second case, this is the original act of organization done to the phantasms in the imagination.

I won't dwell on how Prosper (on Durand's behalf) respond to such objections – suffice it to say, Prosper sticks to his guns: the intellect, in this life at least, is incapable of an independent action: its determination and the relative ease with which it acts is dependent totally upon what the ostensive power presents to it and how quickly it does this. The ordered formation of the imagination is explained by appeal to teaching or chance discovery through trial and error.[32]

Be that as it may, what is important is this. One thing that seems to motivate the location thesis — that cognitive habits do not exist in the intellect — is a commitment to the dependence thesis, the view that there is no intellectual difference without an antecedent difference to something outside the intellect (i.e. a variation to the imagination or ostensive power). Since every intellective act presupposes an antecedent difference to something outside of it, it seems that a theory that countenances habits in both the imagination (or ostensive power) and the intellect is a little more expensive than one that countenances them in just the imagination. Hence, parsimonious Prosper invokes his razor. On the other hand, if the independence thesis is right, then we should countenance habits in the intellect, for there is at least sometimes intellectual change independent of non-intellectual change.

Habits and Acts: Ontology and Change

When coupled together, Prosper's razor and the dependence thesis seem to entail a kind of eliminativism about cognitive habits: we do not need to posit entities inside the intellect in order to explain the content and ease with which we engage in intellective activities. But why stop

principaliter est in<p. 78>tellectus. Unde cum phantasia numquam possit exercere actum quo ordinate formantur in ea tales species quin intellectus ibi principaliorem actum exerceat, sicut ex tali exercitio generabitur habitus in phantasia, ita et in intellectu. Immo cum facilitas et difficultas seu promptitudo et tarditas magis sit in ordinatione phantasmatum quae pertinet ad intellectum quam in simplici formatione quae pertinet ad imaginationem sive phantasiam, magis videtur ponendus habitus in intellectu quam in phantasia."

31 ibid., p. 78: "Sicut ex tali exercitio generabitur habitus in phantasia, ita et in intellectu."

32 In reply to the argument from agency, Prosper denies the guiding assumption: the intellect is incapable of performing an actual deduction unless something outside the intellect changes. See Sent. Prol. 3.3.1, f. 64va; compare with *TDH* 4.8, p. 42–43. As to the claim that the intellect performs an action that orders the phantasms in the first place, Prosper argues that our imagination comes to be ordered either via teaching (*doctrina*) or discovery (*inventio*), and so no antecedent act of thinking is required. See Sent. Prol. 1.6 ad 5 f. 38va–b.

with just cognitive habits? If entities outside the intellect sufficiently explain the content (that is, the determination) of intellective acts as well as the ease with which we elicit such acts, then it would seem we ought to go a step further and eliminate intellective acts as well. But neither Durand nor Prosper go this far — both retain intellective acts in their ontology. In this section, I want to examine their reasons for keeping intellective acts as bona fide entities, and in what sense they do this.

Let me start by distinguishing two views about episodic intellectual change — that is, the change from not thinking to thinking. On the one view, which I will call the quality theory of acts — a view defended by proponents of the Standard Theory of Habits — an intellective act is the direct result of an intrinsic non-relational change that happens to the intellect resulting in a new quality coming about in the intellect. Some identified this quality with the act of thinking, others as a necessary condition for an act of thinking — the so-called intelligible *species*.[33] When conditions are right, and an intelligible object is present to our intellects, that object (either on its own or together with something else) acts upon and changes our intellects, producing a new quality in the intellect. According to another view — endorsed by both Prosper and Durand — an intellective act is not the direct result of an intrinsic qualitative change to the intellect. An intellective act is not an absolute quality inhering in the intellect, nor does it require an absolute quality inhering in the intellect as a necessary condition. Rather an intellective act is a kind of relation, and it results from a extrinsic (relational) change that happens to the intellect. Call this the relation theory of acts. When the intellect comes to be newly related to an intelligible item, we can then claim, without any further ado, that it has elicited an intellective act. All there is to thought is the relation, for an act of thinking just is the relation that obtains between the intellect and a present intelligible item.[34]

Durand and Prosper offer a plethora of arguments in defense of the relation theory of acts.[35] However, I want to mention just one of them. According to Durand, what is less noble can't change what is more noble in terms of an intrinsic qualitative change. However, what is less noble *can* change what is more noble in terms of a relational change. Let's suppose that fire is less noble than the intellect. Fire can't make the intellect hot (it can't bring about an intrinsic qualitative change to the intellect resulting in heat existing in the intellect), but fire can change the intellect in terms of a relational change, for if we move the fire from one side of the room to the other, the intellect will undergo a relational change.[36] Hence, one thing that seems to motivate Durand to take up the view he does about intellective acts is a kind of nobility thesis: the intellect

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33 For recent discussions of both views, see Cross, 2014, esp. chs. 5 and 6, and Hartman, 2014.

34 How can Durand and Prosper explain our thoughts about items that are not present or intelligible, such as universals? Suffice it to say, their position amounts to a kind of causal-theory of content, and faces some of the same challenges that a causal-theory of content faces in explaining the content of such thoughts. See Hartman, 2013 for discussion.

35 In Durand, see Sent. (A) 2.3.5 and *Disp. quaest.* 1. For discussion, see Hartman, 2011, ch. 3, Hartman, 2013, Hartman, 2014, Solere, 2013 and Solere, 2014. For Prosper, see Sent. Prol. 1.5.1 (esp. ad 8) and Sent. Prol. 3.3.1, f. 63ra.

36 Strictly, it is the heat in the fire which is more noble than the dryness in Socrates' hand (say) which explains how it can change Socrates -- from not hot to hot.

is very noble. The better theory will be the one that preserves this basic idea. For Durand, a theory that treats intellective acts as relations preserves the nobility of the intellect in a way that a theory that treats them as qualities or as involving qualities does not.[37] (It is important to note here that for Durand at least, and presumably Prosper, relational change — at least the sort of relational change involved here — is not mere cambridge change, and relations — at least intellective acts conceived of as relations — are bona fide real entities in their own right, albeit with a slightly peculiar ontological standing.)[38]

Now, the virtues and vices of this theory aside the question before us is this: Why don't Durand and Prosper endorse the same sort of relation theory in the case of habits? In other words, why can't habitual change — a change from not having a habit to having one — be a case of a mere relational change to the intellect in the same way that episodic change — a change from not thinking to thinking — is a mere relational change? But, as we saw above in the first section of this paper, Durand and Prosper are *eliminitivists* about intellectual habits — Socrates' change from not having a habit to having a habit does not compel us to postulate a change on the side of the intellect, be it an extrinsic change or an intrinsic change.

In fact, that Durand and Prosper are eliminativists about cognitive habits conceived of as intellectual entities is even more puzzling granted that both authors maintain that a habit is a mere relation and not an absolute quality. As we just saw, relational change does not pose any problem to the intellect's nobility, and so if the change from not having a habit to having a habit is a mere relational change, then it would seem that the intellect's nobility is not put in danger if we coutenance habits, conceived of as mere relations, in the intellect. For instance, Prosper — in the first subquestion in *quaestio* five of the first part of his Prologue — writes,

> Some people maintain that each scientific habit falls into an absolute category, namely the first kind of quality… but others — whose view I endorse — maintain that it falls into the category of relation.[39]

And Durand, in his *Sentences* Commentary declares that "a habit … is not strictly speaking an absolute thing but it is rather a mode of a thing or a relation."[40] So, while Durand and Prosper

37 See Sent. (A) 2.3.5.

38 For Durand, at least some relations are bona fide or real entities in their own right: modes of things and not things, but real all the same. The relevant feature that interests us here is that such relations (as opposed to absolute qualities) do not 'enter into composition' with their foundations, and so the intellect can acquire a new relation (the act) without being compromised, so to speak, by the object's causal power (as it is when it is affected such that it takes on a new absolute quality which enters into composition with it). For a discussion of Durand's views on relations, see Hartman, 2011, ch. 3, Dewender, 2009, Iribarren, 2008, pp. 250–2, Henninger, 1989, pp. 177–8, Iribarren, 2002, pp. 293–4, Müller, 1968, pp. 97–8, Iribarren, 2005, pp. 109–21, Decker, 1967, pp. 427–38, Fumagalli, 1969, pp. 93–113, Schönberger, 1994, pp. 125–31. In Durand, see Sent. (AC) 1.33.1, 30.2, QA 1.1 and Sent. 4.12.1.

39 Sent. Prol. 1.5.1 ("Utrum <habitus> sit res alicuius generis absoluti"), f. 31rb.

40 Sent. (A) 3.23.1 (from Peter of Palude, Sent. 3.23.1–2 Paris 1517, f. 116vb): "[...] habitus [...] non est proprie aliqua natura absoluta sed est magis modus rei vel naturae." See also

both defend the view that cognitive habits are mere relations (or at least non-absolute relational entities), and so the direct result of a relational change and not a qualitative change, they nevertheless reject the idea that habitual change is relational change *to the intellect*. Habitual change, unlike episodic change, does not result in anything at all added to or inhering in the intellect: the intellect is neither newly related nor is it changed in terms of an intrinsic change.[41]

Indeed, they are quite committed to eliminativism about cognitive habits. For instance, Durand, in an unfinished *quaestio* entitled "De subiecto virtutum moralium" nestled among a collection of other texts in Prosper's notebook, writes,

> If scientific knowledge (which is a habit) were in the intellect as in a subject, then it would be acquired in us by way of some change to the intellect; but according to the Philosopher it is acquired in us when a change happens to something else. (VATICANUS *lat.* 1086, f. 186vb)[42]

As well, in his *TDH* , Durand writes,

> When Aristotle is speaking as a natural philosopher, namely in *Physics* 7, he quite clearly states that scientific knowledge comes about in us even if our intellective power doesn't change at all. This wouldn't be the case if scientific knowledge were in the intellect as in a subject, especially if it were taken to be an absolute item. (4.8, p. 55)[43]

DURANDUS DE SANCTO PORCIANO, *quaestio disputata* 2, p. 21 (ed. Takada 1968): "Cum igitur habitus dicat modem quemdam et non rem absolutam[...]" Durand, however, allows us to place habits in the category of Quality, for he holds that not all qualities are absolute things (Sent. (A) 3.23.1).

41 In *TDH* 4.1, p. 10–11, Durand notes that even corporeal habits are not the *per se* and *primo* (that is, direct) result of a qualitative change, although *ex consequenti* such corporeal habits change, for a corporeal habit is just the 'commensuratio' of the four humours in the body.

42 *Quaestio*, "De subiecto virtutum moralium", f. 186vb: "Item si scientia, quae est habitus, subiective esset in intellectu, acquireretur in nobis in novatione facta in intellectu; sed secundum Philosophum acquiritur in nobis mutato quodam altero." Prosper quotes this argument in Sent. Prol. 3.3.1 at f. 62ra.

43 "Ubi autem Aristoteles loquitur ut naturalis philosophus, scilicet septimo Physicorum, plane dicit quod nobis non motis secundum ullam potentiam intellectivam fit scientia in nobis; quod non posset esse si scientia esset in intellectu subiective, maxime si esset aliquid absolutum." See also *TDH* 4.8, p. 46: "Quintum motivum est, quia secundarius terminus cuiuslibet actionis est in eodem subiecto in quo est principalis terminus; sed scientia acquiritur in nobis non ut per se et immediatus terminus alicuius actionis, sed solum ut secundarius terminus alterationis factae secundum partem sensitivam; ergo scientia subiective est in illo in quo est primus et immediatus terminus alterationis sensibilis; illud autem est aliquod corporeum; quare etc. Maior patet, quia per nullam actionem fit aliquid nisi in subiecto actionis in quo est principalis terminus. Quod patet exemplo: sanitas enim quae sequitur alterationem factam secundum calidum et frigidum et caeteras qualitates est in eodem subiecto cum eis. Similiter quantitas et figura quae sequitur alterationem factam secundum rarum et densum sunt in eodem subiecto cum raritate et densitate. Minor patet ex septimo Physicorum, ubi probat Aristoteles ex intentione quod ad scientiam non est per se et primo neque alteratio neque aliqua actio, sed fit

Their commitment to the dependence thesis does not seem to motivate the thesis that habitual change (when one acquires or loses a habit) involves no real change to the intellect, for the relation theory of act is perfectly comfortable with the idea that (a) episodic intellectual change depends upon an antecedent change outside the intellect and yet (b) episodes of thinking are bona fide entities in their own right (albeit relational ones). Nor do worries about nobility seem to have much teeth in deciding the matter here, for, as Durand suggests in the second passage quoted above, the sort of change that is especially damning to the intellect's nobility is intrinsic qualitative change — one that results in an absolute item added to the intellect. Relational change is acceptable at least in the case of intellective acts.

So what really motivates the view that habits are not in the intellect? I would submit, in close, that there are two answers, one simple, one more complex. The more complex answer first. There are good theological reasons for supposing that intellective acts have to be in the intellect as in a subject. For one thing, angels, who have no bodies, can still think. Angels, however, do not have to have habits.[44] For another thing, the beatific vision — an intellective act — is something that the disembodied intellect can enjoy. The disembodied intellect does not have to have habits, at least not — as Prosper puts it — outside Paris.[45] Hence, Durand and Prosper have some reason to think that intellective acts are 'in' the intellect — in the sense that a real relation is in the item so-related. Thus they perhaps with some reluctance endorse the idea that episodic intellectual change involves a real change to the intellect, albeit a mere (extrinsic) relational change. But that's all they have to admit. Hence, the simple answer is Prosper's razor: as natural philosophers we should not countenance too many things over and above the physical.

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in nobis facta alteratione secundum corpus et vires sensitivas." I should note that the passage that both Durand and Prosper have in mind is *Physics* VII.3, a truly incredibly interesting chapter — Aristotle's aim is to show that change occurs only among sensible qualities — that generated a good deal of discussion in the medieval literature. For recent discussion, see Robert, 2016.)

44 On angels, see DURANDUS DE SANCTO PORCIANO, Sent. (A) 2.3.5; Sent. (C) 2.3.6; PROSPER DE REGGIO EMILIA, Sent. Prol. 3.3.1, f. 60va–vb and 1.6 ad 6, f. 39rb.

45 PROSPER DE REGGIO EMILIA, Sent. Prol. 3.3.1, f. 61vb–62ra. According to John of Naples, whom Prosper quotes, Prosper's view entails that when a human being dies, his scientific knowledge dies with him (*mortuo homine non manet scientia habituali*). However, this is an error, condemned by the Bishop of Paris: "Dicere quod intellectus hominis corrupti non habet scientiam eorum quorum habuit — error." Prosper's initial insouciant response: "articulus ille non artat nisi Parisiis." He goes on to give a more serious response to the charge.

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