

## Chapter 19

# Is *Ars* an Intellectual Virtue? John Buridan on Craft



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**Abstract** Scholarship on the philosophy of the Late Middle Ages has tended to overlook certain subject matters, especially some pertaining to ethics and political philosophy. My object of study in this paper is one of these overlooked notions, the idea of craft (*ars*) as an intellectual virtue. While recent publications have focused on *sapientia*, and *scientia*, this paper aims to rehabilitate *ars* as a virtue, in particular John Buridan's understanding of craft as an intellectual virtue in his *Quaestiones super decem libros Ethicorum Aristotelis ad Nicomachum*. My goal is to examine Buridan's analysis of craft as expounded in this commentary. Once the Picardian master's theses have been presented, and the objections he raises have been reviewed along with the solutions proposed to those objections, I briefly suggest why craft might have been overlooked as a virtue.

**Keywords** Buridan · Craft · Virtues · Medieval ethics · Intellectual virtues · Factive intellect · Scholasticism

## 19.1 Introduction

Given its vast corpus and thematic diversity, it is no surprise that the current scholarship on the philosophy of the Late Middle Ages has tended to overlook certain subject matters, especially some pertaining to ethics and political philosophy. A conspicuous example of this is attested to in the recent research on scholastic virtue theory: whereas in the last few decades there has been increasing interest in the

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discussion concerning virtues and *habitus*<sup>1</sup>—and, more specifically, epistemic virtues such as *sapientia*<sup>2</sup> and *scientia*,<sup>3</sup>—one intellectual virtue, namely craft (*ars*),<sup>4</sup> seems to be consistently overlooked,<sup>5</sup> perhaps due to its status as a “minor” or “subordinate” virtue.<sup>6</sup> While this article does not purport to offer *ars* full historical reparations, it intends to rehabilitate it as an intellectual virtue worthy of consideration, and note some aspects of its importance to the general scheme of virtues in scholasticism. To that end, I discuss the status of craft as an intellectual virtue in John Buridan’s (c. 1300–c. 1361) philosophy, namely in his long commentary on the *Nicomachean Ethics*.<sup>7</sup>

<sup>1</sup> See, e.g., Faucher & Roques (2018).

<sup>2</sup> See, e.g., Saarinen (2006) and Hibbs (2001).

<sup>3</sup> See, e.g., Pasnau (2010) and Biard (2012).

<sup>4</sup> For the purposes of this paper, unless otherwise noted, I will be translating the Latin term “*ars*,” which in the Aristotelian context corresponds to the Greek τέχνη, as “craft,” for I believe it captures the discussion at hand better than the direct cognate “art.” Note, however, that the idea expressed by its adjectival correlate (viz. *artifex*) used throughout the text will be “skilled.”

<sup>5</sup> The notable exception being Craemer-Ruegenberg and Speer’s *Scientia und ars im Hoch- und Spätmittelalter* (1994). Although their book approaches the subject matter very broadly, *ars* is rarely taken merely as the virtue but rather in contexts where it stands as near-synonym to *scientia*, namely as a set of scientific-philosophical disciplines—such as when it is used in the contraposition of the *artes liberales* to the *artes mechanicae*, or the discussion about which discipline ought to be called “*ars artium*.” Another book which could be considered an exception is Chandelier, Verna and Weill-Parot’s (2017) *Science et technique au Moyen Âge (XIIe–XVe siècles)*, but it is my understanding that only Robert’s (2017) article in that volume actually lives up to the strictly philosophical questions to which the title of the book may lend itself.

<sup>6</sup> It is interesting to note that *ars* did not figure among the three intellectual virtues in the arts masters’ commentaries on the *Ethica vetus* and *Ethics nova* (i.e., *Ethics* commentaries written until the first half of the thirteenth century), which were restricted namely to *intelligentia*, *sapientia* and *fronesis/prudentia*. With the development of *Ethics* commentaries based on the whole of the *Nicomachean Ethics*, following the appearance of Herman the German’s paraphrase of Moerbeke’s translation to the ten books and the reestablishment of Aristotle’s five intellectual virtues as *scientia*, *intellectus*, *prudentia*, *sapientia* and *ars*, the first of these was given a prominent position in subsequent debates, whereas the last continued to be somewhat neglected. On the intellectual virtues according to the arts masters in the first half of the thirteenth century, see Zavattero (2007, pp. 49–51), and Lafleur (1994, pp. 59–60).

<sup>7</sup> Considering that there is currently no published modern edition of this text, critical or otherwise, all citations to the Latin text will be my transcriptions from the manuscripts. For the purposes of this paper, I have used mainly MS. Vat. urb. 198, for, comparing it with collations from other books of Buridan’s commentary on the *Nicomachean Ethics*, this seems to be a reliable manuscript, containing no important omissions or significant errors. The collation I have used to compare to mine was R. J. Kilcullen’s “Commentary on Aristotle’s *Ethics*, book 10: Corrected text,” from 1996/1999, a careful edition and detailed collation of 8 manuscripts and 2 early printed editions of Book X of Buridan’s *Ethics*, which was used as the basis for McGrade’s, Kilcullen’s, and Kempshall’s translation of the text, published in 2000 as “Jean Buridan: Questions on Book X of the *Ethics*” in *The Cambridge translations of medieval philosophical texts*. The collation and Latin edition, which have not been published, used to be available on Kilcullen’s personal webpage (<http://www.humanities.mq.edu.au/Ockham/>). Unfortunately, this work is no longer available online.

All punctuation marks and emphasis present in the transcribed Latin text are my own.

In what follows, after a succinct presentation of some background discussions on *τέχνη/ars*, I will outline Buridan's view of craft, focusing on question 8 of Book VI of his *Quaestiones super decem libros Ethicorum Aristotelis ad Nicomachum*.<sup>8</sup> Although Buridan's text follows the standard format of a scholastic question,<sup>9</sup> I will present a restructured version of the text for the benefit of the reader. I will start by expounding the Picardian arts master's theses and supporting arguments, sparingly comparing and contrasting them with other medieval authors' wherever such comparisons might prove useful: I will rely on excerpts by Thomas Aquinas (1225–1274)<sup>10</sup> and Radulphus Brito (c. 1270–c. 1320).<sup>11</sup> Although many similarities can be noted between Buridan and Brito—as is to be somewhat expected, given how Buridan, a *maître ès arts* himself, is inscribed in a long tradition of Parisian arts masters,<sup>12</sup>—for the sake of conciseness, I will not thoroughly address those similarities in this paper. Once Buridan's own reasoning is fully laid out, I will present a series of possible objections Buridan raises to his own thesis that craft is a virtue, and explain how he responds to each, with the addition of a few further clarifications to the main theses. Finally, in my concluding remarks, I will address a few issues concerning how craft ranks among virtues and propose a very brief assessment of what could be gained were it afforded a more systematic study.

On the subject of craft, Eustratius of Nicaea (c. 1050–c. 1120), one of the greatest authorities on Aristotelian ethics, wrote that

No one at all having reason can ignore what craft is, since it is a collection of discovered comprehensions, exercised and tested to some good end of the life of those who have reason. Indeed, that definition makes clear that craft has as its end some good, and that this end is good and useful to human life. (*In Ethicam Nicomacheam* I 1, 23–28; my translation)<sup>13</sup>

This passage testifies to medieval and ancient philosophical authorities having a very different notion of craft from the one we currently have. While our understanding of craft<sup>14</sup> might not lend it an important philosophical status and certainly not warrant it a place among virtues, the very first pages of Aristotle's *Metaphysics* paints a completely different picture:

<sup>8</sup>Henceforth, *QNE*. All translations from Buridan's *QNE* used here are my own.

<sup>9</sup>In its original form, the text opens with objections, which are followed by a counter-argument appealing to the authority of Aristotle, followed by Buridan's own theses. Only after his thesis has been thoroughly explained does Buridan, at the very end of the *quaestio*, take the time to respond to the initial objections.

<sup>10</sup>Especially *ST* I-II, q. 57, a. 3.

<sup>11</sup>*Questiones super librum Ethicorum Aristotelis*, q. 140.

<sup>12</sup>Here, I am thinking of Radulphus Brito, Giles of Orleans and numerous “anonymous” (i.e., unidentified) arts masters, such as the so-called “anonymous of Erlangen.”

<sup>13</sup>Eustratius (1973, p. 9), in Grosseteste's Latin translation: “Quid quidem est ars, nullus omnino rationis particeps ignorat quoniam est collectio ex adinventis comprehensionibus, exercitatis et probatis ad aliquem finem bonum eorum quae in vita. Et haec enim definitio manifestat artem finem habentem bonum aliquod. Hunc autem ad humanam vitam bonum et utilem.”

<sup>14</sup>Either as the dexterity involved in skilled labour for which one has trained (maybe even a trade) or as a type of skill tantamount to guile (as when we call someone “crafty”).

[...] science and craft come to men through experience; for “experience made craft,” as Polus says, “but inexperience luck.” Now craft arises when from many notions gained by experience one universal judgement about a class of objects is produced. For to have a judgement that when Callias was ill of this disease this did him good, and similarly in the case of Socrates and in many individual cases, is a matter of experience; but to judge that it has done good to all persons of a certain constitution, marked off in one class, when they were ill of this disease, e.g. to phlegmatic or bilious people when burning with fevers—this is a matter of craft. (981a; trans. 1924, with minor changes)

In agreement with Aristotle’s description in the *Metaphysics* and in the *Nicomachean Ethics* (e.g. 1139b–1140a), in the Middle Ages, craft is a broad concept which goes far beyond what is acquired through the practice of medicine to include dispositions related to architecture, shipbuilding, agriculture, warfare, trade, mantic activities (such as necromancy or witchcraft), rhetoric, and dialectic, to name just a few. How, then, should we understand what craft is and the role it plays in relation to, say, science? Can they coincide? If we rely on this Aristotelian understanding of craft (broader than our current understanding), could we still agree with Aristotle (*NE* 1139b) that craft should be counted among the five intellectual virtues?

In light of these questions and the course of examination I set out to follow above, what I present here is a view of craft which is mostly of historical interest to philosophers, but the problems raised in the medieval discussion could certainly prove to be more broadly thought-provoking, if one were to consider it in the context of current debates on technology and its uses in society.

## 19.2 Buridan: *Ars* Is a Virtue

In *QNE* VI 8, Buridan examines the question of whether craft is a virtue. Although Aristotle had listed craft among the five intellectual virtues in *NE* 1139b, we seem to have a good number of reasons to think that craft is not a virtue: craft looks more like a power or a capacity than a virtue (Sect. 19.3.1); sometimes it seems to be in our best interest that craft be limited or forbidden (which is not the case with any other virtue) (Sect. 19.3.2); it is not perfective like other virtues, in the sense that it does not perfect human activity, but merely guarantees that the end product of the activity is good (Sect. 19.3.3), and also in the sense that it does not seem to perfect us in the same way as other virtues do (i.e., making us good) (Sect. 19.3.4); and if we say that there is a virtue of craft, as one would, then craft cannot be a virtue (Sect. 19.3.5). Before looking at these objections, we should first state that Buridan’s main argument in this *quaestio* is that *ars* is indeed a virtue. He proposes two theses to support that claim: “First, that every craft is a virtue of some sort. Second, that no craft is a virtue of a human being as a human being.”<sup>15</sup> Although Buridan parses out his two theses one at a time, as we will see below, they must be understood as

<sup>15</sup>“Dicenda sunt duo. Primo, quod omnis ars est virtus quaedam. Secundo, quod nulla ars est virtus hominis secundum quod homo.”

necessarily intertwined. The two theses could be translated into a single proposition, namely that craft is a virtue (and an intellectual one at that) because it is the *habitus* of the internal work of the factive intellect. This single proposition more clearly translates the two theses above when we add emphasis to different parts of the statement:

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|---|---|
| (T1) Every craft is a virtue of some sort.                  | = Craft is a virtue because it is the <i>habitus of the internal work</i> of the factive intellect.         |
| (T2) No craft is a virtue of a human being qua human being. | = Craft is a virtue because it is the <i>habitus</i> of the internal work <b>of the factive intellect</b> . |

This difference in emphasis will be clarified in the two subsections that follow.

### 19.2.1 *First Thesis: Every Craft Is a Virtue of some Sort*

As a reaction to the presentation of the first thesis, we might ask ourselves what exactly Buridan means by “every craft is a virtue *of some sort*,” i.e., why Buridan formulates it in that way, instead of simply saying that *craft is a virtue*. As Buridan will explain in his response to the objections to his theses—and as had been said in Book II of the *Nicomachean Ethics* (1106a)—a virtue is that by which a person becomes good, and which renders their work equally good.<sup>16</sup> So, for craft to be considered a virtue, it has to fit that description, i.e., perfect the person having it and render their work good as well. And it does just that, according to Buridan;<sup>17</sup> therefore, it is a virtue. But we still need to examine *how* and *in what sense* craft accomplishes those feats. The first thing to consider here is how craft perfects us or makes us better. Surely craft cannot perfect us in a moral sense. We do not become morally good (or better) because of becoming skilled in craft: craft, on its own, is morally neutral (Robert 2017, p. 62). This must be considered in light of the compelling objections Buridan faces, which seem to demonstrate that even if craft has good work as its result—where “good” is understood as that which is in accordance with an end considered to be fitting by the intellect—it does not necessarily *perfect* us (see Sect. 19.3.4 below); so against Buridan’s claim, one of the two conditions above seems not to be met. In order to understand how Buridan manages to demonstrate that one may be perfected by craft, we must understand more thoroughly how craft works, so to speak.

<sup>16</sup>“Prima conclusio sic probatur: virtus definitiva vel descriptiva est qui habentem perficit et eius opus bene reddit, ut patet secundo huius.”

<sup>17</sup>“Sed omnis ars est huiusmodi [i.e., habentem perficit et eius opus bene reddit].”

Craft, argues the Picardian arts master, perfects us according to the settled disposition we acquire through its activity,<sup>18</sup> namely through an intellectual activity of the factive intellect (*intellectus factivus*), which becomes productive. Indeed, one of the first things Buridan explains in his *responsio* is that craft is proper to the factive intellect, which it perfects. He says,

[...] the work of the factive intellect as factive is twofold, namely: internal and external. Internally, it is the ratiocination aiming at a judgment about things that can be made, [and] the goodness of this work is the truth towards which a craft determines the factive intellect. (*QNE VI 8*)<sup>19</sup>

Internally, then, the work of the factive intellect is properly intellectual: it makes judgments about things that can be made (*factibilia*) in view of good work, which is related to the truth as the result of reasoning well. Craft is an intellectual virtue in that it actually determines or directs the factive intellect toward this truth. Externally, when put into effect and acting, for instance, upon the will and eventually causing the subject to make something in a certain way (acting “factively,” so to speak, on matter), the work of the factive intellect is regulated by its internal work, which ultimately means that the work of the factive intellect is dependent on craft either

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<sup>18</sup>This is in accordance with the general argument made in *QNE VI 1*. Cf., especially: “Hec autem que sic dicta sunt, licet habeant apparentiam, tamen non ex toto vera esse videntur, oportet enim ponere differentiam inter habitus et actus illos ex quibus generantur. Videmus ergo quod actus appetitus sive elicitus, sive imperati non generantur per assuetudinem, sed sunt semper in nostra potestate obiecto presente et cognito et non interueniente impedimento extrinseco. Habitus autem in appetitu nostro generantur ex assuetudine. Pro tanto quia non firmantur et perficiuntur in nobis, nisi per actum frequentationem, hoc enim vocamus ex assuetudine generari. Ita etiam videtur quod in intellectu actuales conclusionum aut principiorum noticie non ex assuetudine, sed per experientiam, vel doctrinam, vel huiusmodi viam aliam generantur. Habitus tamen qui cessante actuali consideratione maneret nonsic, sed firmantur et perficiuntur per frequentatem considerationem, propter quod videmus multos acutissimi ingenii nunquam ad habitum posse peruenire, quia nolunt illam noticiam quam per doctrinam cito et faciliter capiunt frequentare, de quibus dicitur communiter quod quicquid per unam aurem intrat exit per alteram. Videtur ergo quod universaliter habituum generatio proprie sive in appetitu, sive in intellectu sit per assuetudinem, hoc est per actionum seu operationum frequentationem multiplicatam vel si quis dicat quod per quemlibet actum, etiam per primum aliquid ipsius, habitus acquiritur tamen sine assuetudine, hoc est sine actus frequentatione, nec in appetitu, nec in intellectu habitus firmatur et perficitur. Quod autem nos dicimus scientiam acquiri per doctrinam sic habet veritatem, quia ipsa nobis acquiritur per frequentationem actuum qui per doctrinam generantur. Ex quo patet quod rationes precedentis opinionis nihil interimunt eorum que nunc dicta sunt. Nam a principio nos conclusionibus aut principiis assentimus per ratiocinationem aut experientiam. Et cum huiusmodi ratiocinationes et experientias frequentamus, habitus quidem firmatur in nobis, quo quando volumus prompte ratiocinamur. Et quo conclusionem cui sepe per ratiocinationem adhesimus, etiam sine actuali ratione concedimus. Unde concedendum est quod dubiis acquiescere propter consuetudinem acquisitam non ex frequenti ratiocinatione, sed ex frequenti audire tantum, non est prudentie, propter quod Aristoteles non immerito ratiocinationem extollit. Dicendum est igitur ad questionem propositam quod divisio virtutum humanarum in virtutes intellectuales et virtutes morales appetibiles est bona quod satis apparet in opinione precedente.”

<sup>19</sup>“Opus autem intellectus factivi ut factivus duplex est, scilicet interius et exterius. Interius est ratiocinatio ad iudicium de factibilibus, cuius operis bonitas est veritas, ad quam ars determinat intellectum factivum.”

way: directly, when it is internal; and indirectly through the internal work, when it is external—for the goodness of the external work begins in the goodness (and truth-directedness) of the internal work (*QNE VI 8*).<sup>20</sup>

The internal work of the factive intellect can be understood as the role of the director (*dirigens*) in the know-how of a craftsmanship, while the external work corresponds to that of the agent as a doer or maker (*agens*).<sup>21</sup> While the former directs or guides the external work of the factive intellect, the latter inclines us (i.e., our will and, ultimately, our bodies) to the action resulting in production. For craft to be a virtue, it requires both sides of the work of the factive intellect: the external one guarantees its execution so that it can become a settled disposition (i.e., a *habitus*), while the internal one situates its intellectual-ness and truth-directedness, thus allowing for it to be a virtue in the sense of it being an “excellence,” i.e., in the sense of it perfecting the agent.<sup>22</sup> This is how we can get all elements needed to call craft a virtue, i.e., a settled disposition inclining to excellence. This is in line, e.g., with Albert’s understanding of craft requiring both a *habitus factivus* and a *ratio certa*, or the idea of craft as a *habitus factivus cum ratione*.<sup>23</sup>

If craft is to be deemed a virtue proper to the factive intellect and, more specifically, dependent on the internal work of the factive intellect, that means it is a specific kind of intellectual *habitus*: a factive *habitus*. The idea of a factive *habitus* as a *habitus* of the factive intellect is not something we find explained across the board in scholastic philosophy, but it is something Aquinas<sup>24</sup> and Radulphus both deal with and describe more thoroughly than Buridan, who seems to only take it for granted. According to Radulphus,

[...] indeed, craft is a true *habitus* and a factive *habitus*, because it is about operations going over to external matter, and such is a factive *habitus*; and active and factive *habitus* differ because the active *habitus* is about operations that do not go over to external matter, but which remain in the agent, but the factive *habitus* is about operations that go over to external matter, and craft is like that. (*Questiones super librum Ethicorum Aristotelis*, q. 140 (Book VI); my translation and italics)<sup>25</sup>

<sup>20</sup>“Opus autem exterius ab interiori opere natum est regulari. Ideo et eius bonitas nata est, ortum habere a bonitate operis interioris, propter quod Aristoteles vult quod ars reddit opus intellectus factivi bonum et bene se habens.”

<sup>21</sup>This terminology is borrowed from Robert’s (2017) examination of Albert’s notion of craft.

<sup>22</sup>More specifically, the agent’s factive intellect, as the next section will show.

<sup>23</sup>Albert, *Super Ethica VI 6*. On Albert’s understanding of craft and some comparisons between his and Buridan’s ideas, see Robert (2017), esp. pp. 53–63.

<sup>24</sup>E.g., Aquinas, *De unitate intellectus contra Averroistas*, ch. 2.

<sup>25</sup>“[...] ita ars est habitus verus et est habitus factivus, quia est circa operationes transeuntes in materiam exteriorem, et talis <est> habitus factivus; <quia in hoc differunt habitus activus et factivus, quia habitus activus> est circa operationes non transeuntes in materiam exteriorem sed remanentes in agente, sed habitus factivus est circa operationes transeuntes in materiam exteriorem, cuiusmodi est ars” (ed. 2008, p. 490).

Craft is therefore peculiar because as a *habitus* it is not only directed at truth, as is the case with all other intellectual *habitus*, but it also gets translated or rendered into external matter, *according to or following* the internal work of the factive intellect.

Although Buridan does not talk about factive *habitus* specifically in his corpus, if we understand the factive *habitus* as the result of the work of the factive intellect, he would seem to understand the factive *habitus* differently from how Radulphus does above, because of his twofold understanding of the work of the factive intellect:<sup>26</sup> as I have suggested above, for Buridan, just as for Albert, the factive *habitus* requires both “action” and “production” while for Radulphus, only the operations carried over to external matter would allow for a factive *habitus* to be begotten.

Moreover, as has been suggested above, it is in our proper understanding of the structure of craft and how it relates to the intellect that we can fully grasp the sense in which it is an *intellectual* virtue. When we think about the *artes*, it is usual to observe in the scholastic framework that some are called mechanical and some are called liberal. The former are those whose end is work, i.e., “production” or “making,” leading to the accomplishment of an external work or result (in our example of the *ars domificatoria*, the external work accomplished would be a house), and the latter are those whose end is activity,<sup>27</sup> leading to the production of a different kind of outcome, for instance, truth. The subject matter of the so-called liberal (or “free-born”) *artes* is some agent’s intellect: what undergoes change in the case of the liberal arts is not some kind of external matter, but the agent’s own soul. Thus, liberal arts, falling under the category of craft, also produce something good, namely in perfecting someone’s intellect through learning. And even though in this latter case the external work is not material in the same sense as in the *ars domificatoria*, for instance, both cases rely on a presupposed internal work, directed to truth.

The internal work of craft is thus to refer that intellect to the true and good, directing the agent in their work with right reason. Although the internal work of craft might seem worthier of the name “virtue” than the external work, which could be compared to the work of chance (in that it may or may not follow what is proposed by its internal correlate), that is not really the case. First, because, whereas the effects of mere chance are fleeting, in both kinds of *artes* something remains, firmly: the transformation of the material object is only evidently perceived in the case of mechanical crafts, but the disposition to being directed to the right kind of intellectual activity is settled in both cases—the exemplary case being that of the liberal arts, whereby we acquire a mental *habitus* directing us to reason truly. And second, because the external work requires or depends on the internal work,<sup>28</sup> and is thus likewise mediated by and requires its truth-directedness.

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<sup>26</sup> See n. 19 above.

<sup>27</sup> The distinction between “production” (sometimes referred to as “effection”) and “activity” concerns particular aspects of an operation. The former refers to what properly pertains to craft, and the latter refers to the kind of operation more commonly associated with prudence, their pre-operative correlates being the *factibilia* and *agibilia*, respectively.

<sup>28</sup> See n. 20 above.



Thus, craft, regardless of its being taken as an *ars mechanica* or an *ars liberalis*, is involved in the perfection and truth-aiming of the factive intellect. And this brings us to another standard definition of virtue that one would find in other questions, if one were to systematically examine the whole of Buridan's colossal commentary on the *Ethics*: that virtue is also defined by being the cause of the best work of which a power is capable.<sup>29</sup> If we consider along with that what has just been said about the factive intellect—that it ought to reason correctly about things that can be made—then craft seems to determine the (factive) intellect, directing it to its best work (*QNE VI 8*).<sup>30</sup> Thus, craft would fulfil the two conditions mentioned above (namely, make someone good and render their work good) and qualify as a virtue of some sort, especially with respect to its internal work.

### 19.2.2 *Second Thesis: No Ars Is a Virtue of a Human Being as a Human Being*

The second thesis, which, as I have suggested, presents itself as a sort of complementary reiteration of the first, helps us further understand why craft is a virtue *of some sort*, and not simply a virtue without further qualification, and how it can still be counted among human virtues even if it is not a virtue of humans *qua* humans. Here, Buridan turns to Book VII of the *Nicomachean Ethics* (1152b) and to the distinction between human beings who are good *secundum quid* and those who are good *simpliciter*. Indeed, as we have seen, craft does not make humans good absolutely. It only seems to make good craftspeople or artisans, for even through the craft of building, as Buridan says, one can build a house badly on purpose, or one can build houses which are good, firm and beautiful, but for bad reasons and/or with bad aims (*QNE VI 8*).<sup>31</sup> Here we can think of a contractor commissioned to build concentration camps knowingly: even if the buildings perfectly suit their purpose

<sup>29</sup> See, for instance, Buridan, *QNE VI 9*: “[...] ut dicitur primo de Caelo, ideo etiam dicitur septimo Physicorum quod ‘virtus est dispositio perfecti ad optimum,’ scilicet ad optimum (eius) opus, sed quaedam animae potentia est intellectus practicus seu activus [...]”; and *QNE VII 5*: “Item, sciendum est quod virtus dupliciter accipitur: uno modo proprie, scilicet pro habitu perfecto, videlicet *inclinante et determinante potentiam ad optimum opus in quod ipsa potest*; alio modo large, pro quolibet habitu inclinante et determinante potentiam ad opera laudabilia” (emphasis mine). This idea can be originally traced back to Aristotle, *EE 1218b*.

<sup>30</sup> “Item virtus attenditur secundum maximum et optimum opus in quod potentia potest, at intellectus factivi, secundum quod est factivus est verum dicere circa factibilia et ad hoc ars determinat intellectum igitur.”

<sup>31</sup> “Secunda conclusio probetur sic. Illa non est virtus hominis secundum quod homo, quae non reddit hominem bonum hominem simpliciter, et patet secundo huius [sic], sed ars non reddit hominem simpliciter bonum hominem: quia multi sunt docti artifices et experti, qui sunt mali homines. Puta intemperati aut iniusti: nec mirum quia per artem domificatoriam et secundum artis exigentiam potest domus fieri in se bona, firma et pulchra propter malum finem, sicut propter bonum, et ita male humana malitia.”

and follow the tenets of good architecture and engineering, the builder will not be considered a virtuous human being *simpliciter*. In this sense, because it is only concerned with the final product and not with the practice itself, craft does not seem to qualify as a virtue in quite the same sense as the other four intellectual virtues,<sup>32</sup> or any of the moral virtues.

Moreover, virtues are directed to the best work of which agents or those agents' powers are capable, as has been said above. But craft is only about lowly things and not about acting—and the *agibilia*—as is proper of *prudentia* and the moral virtues, nor about contemplating, as is proper of *scientia*, *intellectus* and *sapientia* (*QNE VI 8*).<sup>33</sup> In addition, craft acts on the factive intellect, which is also inferior in comparison to the active (or operative) and the speculative intellect to which those four other intellectual virtues are connected. Now, a virtue, understood as an excellence, ought not to be directed to the lowest or least worthy of our parts, but, instead, to our noblest part, the part by which we are named by metonymy (*QNE VI 8*).<sup>34</sup> Once again, craft does not seem to qualify as a virtue in quite the same sense as them, for it only pertains to a lowly part of our intellect. As Buridan explains it,

To each singular human part or power that has a different operation a different virtue must be attributed, determining it to the ultimate work of which they are capable. For instance, one is the virtue of the eye, another one that of the hand. But no virtue of a part or of a particular power [of the human being] should be called a virtue of the whole absolutely, except for the virtue of the most principal part or of the most principal power. However, if the whole does not have powers distinct from the singular powers of the parts, then there is no problem in attributing the virtue of the most principal part to the whole, for, as Aristotle says in the ninth book [of the *Nicomachean Ethics*], “[as in] the state [the sovereign] seems to be the most important thing, so it is with man and with any other composite whole.”<sup>35</sup> Therefore, any one craft is a virtue, not of human beings as human beings, but belonging to the factive intellect, ordered to the object of its craft, just as the craft of building belongs to the building intellect, and likewise for [all] singular things. (*QNE VI 8*)<sup>36</sup>

<sup>32</sup>To wit: *prudentia*, *intellectus*, *scientia*, and *sapientia*. See Buridan *QNE VI 1*.

<sup>33</sup>“Item virtus hominis attenditur secundum maximum opus et optimum quod homo potest, sed optimum opus quod homo potest non est circa factibilia, circa quae est ars, sed vel circa agibilia, vel circa speculabilia, cum circa obiectum nobilius debeat esse opus nobilius et melius.”

<sup>34</sup>“Item virtus alicuius non debet attendi secundum eius partem inferiorem vel viliorem, sed vel secundum se totum, vel secundum partem nobiliorem et excellentiorem a qua totum maxime natum est nominari. Sed intellectus factivus est pars inferior quam intellectus activus vel speculativus.”

<sup>35</sup>Aristotle, *NE 1168b*.

<sup>36</sup>“Dicam igitur quod singulis partibus vel potentiis in homine habentibus alias et alias operationes attribuendae sunt aliae et aliae virtutes proprie determinantes eas ad ultima opera in quae possunt: alia enim est virtus oculi, alia manus. Sed nulla virtus partis vel potentiae particularis deberet dicit virtus totius simpliciter, nisi virtus partis seu potentiae principalissimae. Si tamen totum non habeat potentiam distinctam a potentiis singularibus partium, tunc non est inconveniens virtutem partis principalissimae toti simpliciter attribuere, quia sicut dicit Aristoteles nono huius ‘quemadmodum civitas principalissimum esse videtur, sic et homo et omnis alia congregatio.’ Igitur quaelibet ars est virtus, non hominis secundum quod homo, sed intellectus factivi in ordine ad obiectum illius artis, ut ars domificatoria intellectus domificativi, et sic de singulis.”

Indeed, Buridan acknowledges that we ought not to say that the virtuous dispositions which do not concern the whole human being but only particular parts (such as the eye or the hand) are *habitus* that make us good human beings *simpliciter*, except for when the part concerned is the main part, namely the contemplative intellect in the case of humans. Hence, because craft refers to an inferior or less worthy part of our soul, i.e., the factive intellect, it does qualify as an intellectual virtue, only not a virtue of a human being *as a human being*. When we say that craft is a virtue, it is thus not a virtue of the human being as a whole, but a virtue *of the factive intellect*, and although it is not a virtue of humans “*secundum quod homo*” (Buridan, *QNE VI 8*),<sup>37</sup> it is still a virtue.

This is a point where Buridan and Aquinas are at odds with one another. For Buridan, *ars* is somewhat a minor virtue because it is only a virtue of the factive intellect, and needs the aid of another virtue for it to count as a virtue of a human being qua human being. The virtues that have this supplementary role are either the moral virtues—i.e., the virtues pertaining to the appetitive part of the soul—or prudence, which is the intellectual virtue acting as the manager of moral virtues.<sup>38</sup> For Buridan, thus, there is a link between craft and the appetite, albeit not a necessary or determining one, as he makes clear in his reply to the third objection, when he says that “craft results in the good of the internal work of the factive intellect, but does not perfectly determine the external work, nor its appetite, to be directed to the good absolutely. Rather, to do that it requires a virtue, as has been said” (*QNE VI 8*),<sup>39</sup> and as will also be emphasized in Buridan’s response to the first objection, in Sect. 19.3.1 below. From Buridan’s point of view, although craft is a virtue of the internal work of the factive intellect (*QNE VI 8*),<sup>40</sup> in order for it to be mainly associated with the agent’s actual production—i.e., with the external things made or produced—and for it to be an operative *habitus*, it must be able to guide the external work of the factive intellect and, thence, engage with the appetite. In this sense, the Picardian master’s thesis entails that there is a normative, moral aspect added to craft, one which is most evidently seen through the work of prudence.<sup>41</sup>

For Aquinas, on the other hand, craft and the appetite are in no way related. According to him,

[craft] is nothing but “the right reason about certain works to be made.” And yet the good of these things depends, not on a human’s appetitive faculty being affected in this or that way, but on the goodness of the work done. For a craftsman, as such, is commendable, not for the

<sup>37</sup> See n. 31 above.

<sup>38</sup> On the role of prudence as a manager of the appetitive virtues, see *QNE VI 1*.

<sup>39</sup> “[...] ars reddit interius opus intellectus factivi bene se habens, sed non determinat perfecte opus exterius, nec ipsum appetitum ad simpliciter bene se habere, sed ad hoc indiget virtute ut dictum est.”

<sup>40</sup> “[...] propter quod Aristoteles vult quod ars reddit opus intellectus factivi bonum et bene se habens.”

<sup>41</sup> Much has been written on Buridan’s notion of prudence. Since summarizing it here would go beyond the scope of this paper, I refer the reader to Saarinen (2003) and Korolec (1973, esp. pp. 43–92). See also Buridan *QNE VI 18–20*.

will with which he does a work, but for the quality of the work. Craft, therefore, properly speaking, is an operative *habitus*.<sup>42</sup> (Aquinas, *ST* I-II, q. 57, a. 3, *responsio*; trans. 1911–1925)<sup>43</sup>

According to the *Doctor Angelicus*, craft does not at all pertain to the appetite. It has no morally normative scope. The virtue of craft resides simply in one's intellectual relation to the *factibilia* and has no bearing beyond the factive intellect. Aquinas expands on his own view, reinforcing the strict separation between *ars* and the appetitive power:

[Even if it is an operative or factive *habitus*, craft] has something in common with the speculative *habitus*: since the quality of the object considered by the latter is a matter of concern to them also, but not how the human appetite may be affected towards that object. For as long as the geometrician demonstrates the truth, it matters not how his appetitive faculty may be affected, whether they be joyful or angry: even as neither does this matter in a craftsman, as we have observed. And so craft has the nature of a virtue in the same way as the speculative *habitus*, in so far, to wit, as neither craft nor speculative *habitus* makes a good work as regards the use of the *habitus*, which is the property of a virtue that perfects the appetite, but only as regards the aptness to work well. (Aquinas, *ST* I-II, q. 57, a. 3, *responsio*; trans. 1911–1925, with minor changes; my italics)

For the Angelic Doctor, thus, craft is a factive *habitus* which has in common with the speculative *habitus*—and is therefore considered amongst them—the fact that it makes it easier for the factive intellect to act promptly regarding its objects, but that is independent of the practical or moral consideration about that *habitus* being used in an optimal manner, one which perfects the appetite. For Buridan, however, you can have it both ways: craft can be an intellectual virtue and it can be relevant to the appetite, guiding it.<sup>44</sup> This is precisely why, for the Picardian arts master, craft and prudence have this peculiar status among intellectual virtues in that although they originate in the intellect, both are said to be habituated in a way that is similar to the virtues of the appetite.<sup>45</sup> In this broader sense, i.e., considered in its appetitive

<sup>42</sup>Although Aquinas seems to conflate operative and factive *habitus* here in the *ST* (following the conflation of *intellectus agens* and *intellectus factivus*), in his commentary on the *Nicomachean Ethics* he takes into account the distinction between the two, namely that the operative intellect deals with moral choices whereas the factive intellect, properly concerned with *ars* and with the *habitus factivus*, in dealing with the making of things, represents the lowest part of the intellect. Cf. Aquinas, *Ethicorum ad Nicomachum*, lib. VI, lectio III (1882, pp. 857–858).

<sup>43</sup>“[...] ars nihil aliud est quam ratio recta aliquorum operum faciendorum. Quorum tamen bonum non consistit in eo quod appetitus humanus aliquo modo se habet, sed in eo quod ipsum opus quod fit, in se bonum est. Non enim pertinet ad laudem artificis, in quantum artifex est, qua voluntate opus faciat; sed quale sit opus quod facit. Sic igitur ars, proprie loquendo, habitus operativus est.”

<sup>44</sup>Through the external work of the factive intellect, which influences but does not perfectly determine the appetite. See n. 39 above.

<sup>45</sup>Here, we must consider what Buridan says in *QNE* VI 1, where he divides virtues according to whether they are moral or intellectual: he argues that the former are virtues of the sensitive appetite requiring more practice and greater habituation; they are also more naturally inclinable or inclined to certain actions because they do not cognize. The latter, however, are virtues of the intellect and may require less repetition and habituation, as we sometimes promptly accept conclusions from a singular intellectual act. In the case of craft and prudence, however, unlike those of *scientia*, *intel-*

bearing and habituated in the manner of appetitive virtues, craft as a virtue of humans qua humans does not merely require that one put to work a certain skillset that follows the canon of a particular mechanical art, for instance, but that this skillset be put to work with right reason taken as a measure of good work in general, and not merely good craftsmanship. With this moral aspect aside—which only applies to a broad consideration of craft, understood in conjunction with a moral virtue or prudence—when we consider craft alone, in its purest sense, it is not only to be counted amongst virtues in general but, more specifically, as noted, amongst intellectual virtues, because it originates in the human intellect. Thus, craft is a virtue *of some sort*, i.e., a virtue *of the factive intellect*, even if it cannot be *stricto sensu* labeled a virtue of human beings qua human beings.

### 19.3 Objections: *Ars* Does Not Seem to Be a Virtue

Buridan's arguments seem compelling; yet, as is standard in late medieval question commentaries he must deal with proposed objections to his views. He presents several reasons why craft does not seem to be a virtue. And although we now have a grasp of Buridan's theses on the matter, we still ought to see how he can properly respond to the set of arguments presented in the beginning of his *quaestio*, which aim to deny that crafts are virtues.

#### 19.3.1 *Craft Is Not a Virtue; Craft Is Rather a Power*

First,

It is argued that [craft] is not [a virtue], for in the second [book of the *Nicomachean Ethics*] it is said that “virtues are not affections nor powers”<sup>46</sup> and in the ninth book of the *Metaphysics*, Aristotle says that “crafts are powers.”<sup>47</sup> In fact, he says that “some of our

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*lectus* and *sapientia*, more practice and repetition seem to be required, as if they behaved like moral virtues. From this question, see also, and especially, the third objection and Buridan's response to it, as well as this excerpt from his *respondeo*: “Quintum directivum [operum humanorum] sunt virtutes morales per assuetudinem inclinantes appetitum ad exsequendum id quod ratione decretum est et ad expectandum semper in suis motibus et operationibus iudicium rationis, sic enim nature consonant omnes nostre operationes. Ergo si assuetudo aliqua concurrat ad habitum intellectualium generationem et confirmationem, tamen non ex assuetudine principaliter generantur, sed per experientiam vel doctrinam, propter quod habitus intellectuales non dicuntur morales. Sed contra, morales merito distinguuntur.”

<sup>46</sup>Aristotle, *NE* 1105b–1106a.

<sup>47</sup>Aristotle, *Met.* 1046b.

powers are acquired through learning,”<sup>48</sup> namely crafts [are acquired in this way]; therefore etc. (Buridan, *QNE VI 8*)<sup>49</sup>

According to the authority of Aristotle in the *Nicomachean Ethics* (1105b), there seem to be three sorts of things in our intellect: affections, powers, and *habitus*, and a thing cannot be two of these at the same time. Considering that in *Metaphysics* 1046b Aristotle is clear about the status of craft as a power, rather than an affection or a *habitus*, that means that craft is not a virtue, since virtue is a species of *habitus*—namely, a praiseworthy *habitus* or settled disposition for acting well.<sup>50</sup>

To this first objection, Buridan replies that

It must be said that virtue is neither properly an affection nor a power, but is rather a disposition or *habitus* of a power determining that power to its best work. However, whenever the name “power” is used in a broad sense, extending it to the *habitus* or dispositions of true powers, then crafts as well as all virtues can be called powers, so indeed Aristotle says in the first book of the *Rhetoric* that “virtue is a power to acquire good things and a power to maintain and do many good things.”<sup>51</sup> Or it must be said that, since virtues and vices are determinations of [our] powers directed toward opposite things, craft is called virtue insofar as it determines the factive intellect to judge truly about things that can be made. (*QNE VI 8*)<sup>52</sup>

A power, initially, can be directed to one of two opposites. But a craft always judges truly and well, so it is only directed toward truth and goodness. Because of that, craft cannot be considered a power, and it must rather be taken as a virtue. There is no such thing as a “bad craft” according to Buridan. Here, it may help to look at Aquinas’ consideration that

[...] when anyone endowed with a craft produces bad workmanship, this is not the work of that craft, in fact it is contrary to the craft: even as when a man lies, while knowing the truth, his words are not in accord with his knowledge, but contrary thereto. Wherefore, just as science has always a relation to good, as stated above, so it is with craft: and it is for this reason that it is called a virtue. And yet it falls short of being a perfect virtue, because it does not make its possessor to use it well; for which purpose something further is requisite,

<sup>48</sup>Aristotle, *Met.* 1046b.

<sup>49</sup>“Arguitur quod non, quia secundo huius dicitur quod ‘virtutes nec sunt passiones nec potentiae’ sed in nono Metaphysicae dicit Aristoteles ‘artes esse potentias.’ Dicit enim ‘aliquas potentiarum nobis esse acquisitas disciplinatu,’ scilicet artes. Ideo etc.”

<sup>50</sup>See, e.g., Aristotle, *Met.* 1022b and *NE* 1103a.

<sup>51</sup>Aristotle, *Rhet.* 1366a: “Virtue, it would seem, is a faculty of providing and preserving good things, a faculty productive of many and great benefits, in fact, of all things in all cases” (trans. 1926).

<sup>52</sup>“Ad primam dicendum quod virtus nec est passio neque potentia proprie, sed est dispositio vel habitus potentiae determinans potentiam ad optimum eius opus. Quandoque tamen utimur large nomine potentiae, extendendo ipsum ad habitus vel dispositiones verarum potentiarum, et ita artes et omnes virtutes possunt dici potentiae, sic enim dicit Aristoteles primo Rhetoricae quod ‘virtus est potentia acquisitiva bonorum et servativa et potentia benefactiva multorum.’ Vel dicendum cum virtutes et maliciae sint determinationes potentiarum ad opposita se habentium, ars dicitur virtus inquantum determinat intellectum factivum ad vere iudicandum circa factibilia.”

although there cannot be a good use without the craft. (*ST* I-II, q. 57, a. 3, ad 1; trans. 1911–1925, with minor changes; my italics)<sup>53</sup>

Although we have seen excerpts where Buridan seems to disagree with Aquinas, they concur on the fact that craft itself cannot be ordered to a bad end. As opposed to what the objection suggests, bad workmanship is contrary to craft,<sup>54</sup> and not the result of craft as a power which got swayed in the bad direction. What Buridan explains is that in its *internal* operation (as a virtue) craft always judges well and truly about the *factibilia*. If that internal act of judgment results in an equally good and truthful external operation, this creates a truth-oriented settled disposition (*habitus*) of craft, i.e. once the intellect is directed and an act is accomplished, that act leaves a trace in the agent, disposing them to act in a similar manner in similar circumstances. That is, fundamentally, the work of a disposition, not that of a power. Now, insofar as it needs to judge truly internally, as has been said, and then put to work externally, Buridan will add in a way that is reminiscent of Aquinas' excerpt above that craft requires the aid of a virtue:

But because—with respect to the external work—craft is directed toward opposite things, since, just as a doctor can heal through medical craft, a doctor can also kill, for that reason, crafts like these are called powers and require another virtue determining them to operate well absolutely, namely prudence or a moral virtue. Therefore, Aristotle rightly says that “there is [such a thing as] a virtue of craft.”<sup>55</sup> (*QNE* VI 8; my italics)<sup>56</sup>

What Buridan is qualifying is that it is only with respect to its *external* work that craft is directed to opposites. But it is with respect to its *internal* work that it is called a virtue. Two different things are being referenced here. Buridan can thus qualify Aristotle's assertion (*Met.* 1046b) that crafts are powers: properly speaking, crafts are *habitus*; they can, however, be called powers, in a less strict sense insofar as, by themselves and with respect to the external work, they can sway toward the good and the bad—just as medicine can be used to heal or to kill. It is in that sense that they require, as suggested by Aquinas, an additional virtue guiding it in accordance with right reason. In a certain sense, then, one could say there is a virtue of craft insofar as once its external work is aided by prudence or one of the moral virtues, the agent becomes disposed to act in one way.

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<sup>53</sup> “[...] cum aliquis habens artem operatur malum artificium, hoc non est opus artis, immo est contra artem, sicut etiam cum aliquis sciens verum mentitur, hoc quod dicit non est secundum scientiam, sed contra scientiam. Unde sicut scientia se habet semper ad bonum, ut dictum est, ita et ars, et secundum hoc dicitur virtus. In hoc tamen deficit a perfecta ratione virtutis, quia non facit ipsum bonum usum, sed ad hoc aliquid aliud requiritur, quamvis bonus usus sine arte esse non possit.”

<sup>54</sup> See also Aristotle, *NE* 1140a.

<sup>55</sup> Aristotle, *NE* 1140b.

<sup>56</sup> “Sed quia in ordine ad opus exterius ars se habet ad opposita, quoniam sicut per artem medicinae medicus potest sanare, ita potest interficere, ideo artes ut sic vocantur potentiae et indigent ad simpliciter bene operandum alia virtute determinante eas, videlicet prudentia aut morali virtute; ideo enim bene dicit Aristoteles quod ‘artis erat virtus.’”

### 19.3.2 *Craft Is Not a Virtue, Because Craft Is Sometimes Forbidden*

Another characteristic of virtues in general, according to the objections, besides their being strictly distinct from intellectual powers and affections, is that “no virtue should be forbidden, since virtue perfects the one who has it and makes their work good” (Buridan, *QNE VI 8*);<sup>57</sup> for why would anyone want to impose a limitation on virtue and, therefore, impede the excellence in the appropriate performance of an activity? “Some crafts, however, are forbidden” (*QNE VI 8*),<sup>58</sup> Buridan notes. Here, we can think of witchcraft or necromancy as sorts of crafts which were prohibited or strictly limited in the Middle Ages. If there are cases where we set limits to certain crafts or even forbid that they be exercised, and if virtues ought not to be curtailed or deliberately prohibited, this must be an indication that craft is not a virtue.

To this second objection, Buridan replies that

No craft is forbidden on account of their being virtues, namely on account of their being things determining the intellect to true judgment, but [craft is forbidden] because we can use it badly through our badness with regards to external operations. Therefore, crafts are not restrained on account of their being virtues, but rather on account of our badness, lest we be armed with them, for “injustice armed is at its harshest,” [as Aristotle says] in the first book of the *Politics*.<sup>59</sup> (*QNE VI 8*)<sup>60</sup>

Restrictions are not imposed on crafts as virtues per se, for, as we have seen, there is no such thing as a “bad craft.” Limits are set, instead, to whatever might impel humans to act in a vicious or malicious manner. For instance, if we must set limits to the practice of medicine, it is not because the craft that is the virtue resulting from the practice of medicine might be bad, but rather because this practice, if misused in a practical, moral sense, might end up being harmful; and its *habitus* might end up leaving a trace on the individual, inclining them to doings that tend to evil rather than the good, creating, rather, a vice. What we are limiting, thus, when we impose restrictions on craft, is not the intellectual virtue itself, but rather the human behaviour, i.e., the external operation, which has a moral scope and which could lead to moral vice.

Unlike the case of medicine which can be used for either good or evil, if mantic activities are understood, as they were in the late Middle Ages, not as activities in

<sup>57</sup>“Item nullae virtutes debent prohiberi, cum virtus habentem perficiat et opus eius bonum reddat [...]”

<sup>58</sup>“[...] sed aliquae artes prohibentur.”

<sup>59</sup>Aristotle, *Pol.* 1253a.

<sup>60</sup>“Ad aliam dicendum quod nullae artes prohibentur ea. ratione qua sunt virtutes, scilicet determinantes intellectum ad verum iudicium, sed ea. ratione qua possumus eis male uti quoad operationes exteriores per nostram maliciam. Non igitur propter se prohibentur, sed propter nostram maliciam, ne eis armemur. ‘Saevissima enim est iniustitia habens arma,’ primo *Politicae*.”



which one should strive for excellence<sup>61</sup> but rather as activities to be avoided at all costs (as, e.g., the 1277 condemnations suggest), this means that witchcraft is a craft in name only and not in its true sense of a virtue; thus, following what has been said in Sect. 19.3.1 above, just like necromancy, fortune-telling, incantations etc., it is actually contrary to craft and ought to be forbidden.

### 19.3.3 *Craft Does Not Perfect the Activity*

Moreover, a third objection suggests, according to Aristotle, that

“Each virtue, at any rate has a [twofold effect] on the thing to which it belongs: it perfects the one who has it and makes them do their work well,”<sup>62</sup> [as is said] in the second book [of the *Nicomachean Ethics*]. But craft does not make it so that someone performs their function well; rather, it causes them to produce good work. In fact, through building a builder makes a house in itself good and firm, even though they sometimes act badly, for [they sometimes act] toward a bad end. It has been said in the preceding question that it is sometimes the case that a certain effect is had following craft, and [acting] against prudence. (Buridan, *QNE* VI 8)<sup>63</sup>

So, virtues dispose us to carry out our doings and makings in a good manner, meaning that virtues dispose us to two kinds of things: (i) to good action as an activity, and (ii) to good work as an effect of that activity. But craft does not seem to comply with the first kind of disposition. It seems to produce good work, in the sense that it can cause the final product of the work to be good—but that says nothing about the manner in which that work has been carried out. Craft, unlike virtue, whose value depends on the agent and on how an activity is brought about, is valued for its resulting work, the products of its making. We can use craft to aptly perform actions aiming at bad ends, or we can use craft to carry out actions while, for instance, disregarding the counsel of prudence or ignoring the *recta ratio*. That is why we call someone who builds firm and good houses a skilled housebuilder (i.e., skilled or virtuous with regards to the *ars domificatoria*) regardless, e.g., of their occasionally (or often) acting in a bad manner from a moral standpoint. In those cases, craft does not seem to dictate anything at all about how one acts or ought to act, or about how an activity is to be carried out; it only refers to the final product of the activity. We can also think of a skilled proponent of the *ars oratoria*, writing an undeserved encomium. The writing can be considered good in the sense that it conforms to the

<sup>61</sup> In fact, they are often conceived as activities meant to compel us and drive us to error when we would not otherwise err.

<sup>62</sup> Aristotle, *NE* 1106a.

<sup>63</sup> “Item ‘omnis virtus, cuius utique fuerit virtus, et illud bene habens perficit et opus eius bene reddit,’ secundo huius, sed ars non reddit opus bene, sed bonum: domificator enim per autem domificatoriam facit domum in se bonam et firmam, qui tamen aliquando male agit, quia ad malum finem. Dictum enim fuit in quaestione praecedenti quod aliquando contingit eundem effectum fieri secundum artem, et contra prudentiam.”

rules of good prose composition (grammar, syntax, style etc.) and that it manages to leave its recipient with a sense of satisfaction, self-confidence and self-respect, albeit false. The work of the craft as an effect has thus been achieved; but we can still say the orator has acted badly, for flattery would hardly be considered a good thing, one to which we ought to aspire and be disposed to. In writing undeserved accolades, possibly for some ulterior benefit, the writer is likely acting against the counsel of prudence or against some moral virtue (to wit, justice and truthfulness). In that sense, craft does not seem to qualify as a virtue according to the conditions proposed by Aristotle (*EN* 1105a), namely that the agent act with knowledge, and deliberately choose the action for itself (and not, say, in light of some ulterior gain, nor by coercion), and that the action come from some sort of settled disposition.

Buridan's reply to the third objection has been explained in the previous section when, in opposition to Aquinas' understanding of the role of craft in the intellect and its absolute separation from the appetite, we described Buridan's conception of how craft operates in the internal and external work of the factive intellect, and how it can, through another virtue (and by affecting the appetite), be transferred over into external matter.<sup>64</sup> What is worth adding here is that craft is necessary but not sufficient to direct us, as human beings, to the good absolutely, in that humans are not merely beings of intellection and activity, but also of production, in the sense that we all at least occasionally engage in makings and creations that involve craft, even if we are not all craftspeople.<sup>65</sup> In order to do that, as the responses to the objections above have suggested, craft requires something else, another virtue, to actually guide it, externally, towards its good end. That is to say that if the external work perfectly conforms to the internal work of the factive intellect, a disposition could be formed in the agent, prompting them to act in a similar manner in similar circumstances. However, the external work does not necessarily conform to the internal work. In fact, there are cases where the external work is not fully virtuous even if it conforms to the internal work, such as the case of the construction worker building a concentration camp, and the rhetorician writing an undeserved encomium. In these examples, the internal work dictates how these things ought to be done, and the external work may or may not follow it. If it does, that is only a guarantee that the product of the action is technically good, i.e., respectively, that the building is sturdy and the speech indeed praises its addressee; but if the external work is not accompanied by the appropriate moral virtue (or by prudence), the act itself is not fully virtuous or fully good, as we can clearly see to be the case for the building of the concentration camp (whose end is an evil) and the writing of the undeserved encomium (whose end is an instance of injustice). This is because the ultimate good aimed at in the operations of a virtuous agent comes from their moral judgment, and not merely from the operations of the factive intellect. So, a certain understanding

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<sup>64</sup>For Buridan's text, see n. 39 above.

<sup>65</sup>Here, we must also recall that *ars* comprises not only building crafts but also medicine, rhetoric, dialectic, etc., as mentioned in Sect. 19.1 above. Hence, in our production of certain speeches and some kinds of reasoning we employ craft, even if we are not craftspeople in the contemporary sense of the term.

of the moral good must accompany the agent's reasoning in cases of virtuous actions—and this is the sense in which craft requires a virtue. However, craft is still a key, necessary virtue, in that no skilled work can be performed by another virtue alone, without craft.

### 19.3.4 *Craft Does Not Make a Person Good Absolutely*

This is how we come to the fourth objection presented in Buridan's *quaestio*:

"A human virtue is that according to which a human being is called a good human being,"<sup>66</sup> as is clear in the second book [of the *Nicomachean Ethics*], but a human being is not said to be good according to craft, for many craftsmen are rather bad human beings. (*QNE VI 8*)<sup>67</sup>

Beyond the case of the rhetorician, mentioned above, in Sect. 19.3.3, this is clearly observed in the case of skilled craftsmen and ingenious people, who are considered good in relation to the things they make and produce, but who are not necessarily seen as good people absolutely, or are even seen as bad people overall, for the way they act in general. It would seem that they might be good *secundum quid*, i.e., specifically pertaining to that one aspect in which they are skilled, but not good *simpliciter*, i.e. absolutely, concerning the whole of their being human. Thus, again, the craft or skillset by which we can be called good at something but not a good person in general does not seem to meet the threshold of virtue. Suffice it to think of Phidias and, on the one hand, his statue of Zeus at Olympia, considered one of the seven wonders of the ancient world, and, on the other, his alleged theft of gold and supposed impiety.<sup>68</sup> Although Phidias might be portrayed as an extremely *skilled or virtuous sculptor*, it does not seem to be the case that he would be called a *virtuous human being*. Thus, according to this line of reasoning, craft cannot qualify as a virtue.

In his reply to the fourth argument, Buridan recalls that it has been "rightly show[n] that craft is not a virtue of human beings *as human beings*" (*QNE VI 8*),<sup>69</sup> as we have seen in Sect. 19.2.2. Craft must then be understood merely as a virtue of the factive intellect and not as a virtue of humans *qua humans*.

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<sup>66</sup>Aristotle, *NE* 1106a.

<sup>67</sup>"Item 'virtus hominis est secundum quam homo dicitur bonus homo' ut patet secundo huius, sed homo non dicitur secundum artem bonus homo, quia multi artifices sunt valde mali homines."

<sup>68</sup>The accounts of the accusations made against Phidias and of their legitimacy vary, but here they are taken at face-value for the sake of the example.

<sup>69</sup>"Alia ratio bene probat quod ars non est virtus hominis secundum quod homo."

### 19.3.5 *If There Is a “Virtue of Craft,” Craft Itself Is Not a Virtue*

Now, even if we were to grant, on account of what has been said above, that craft is not really a virtue, we could still say that there is a certain virtue of craft, in the sense that a virtue could accidentally belong to craft. That is to say, although the conditions as to what counts as a virtue proposed by Aristotle are not *necessarily* fulfilled by craft, they *could* be fulfilled in specific instances of craft, when a virtue is added to it. But then the last of the objections faced by Buridan surfaces, for although Aristotle says that there is a virtue of craft (*NE* 1140b), he also says that “there is no virtue of a virtue, for this would go on infinitely” (Buridan, *QNE* VI 8);<sup>70</sup> thus, craft cannot qualify as a virtue. This objection tracks an objection found in Aquinas’ treatment of the issue: “[...] there is no virtue of a virtue. But ‘there is a virtue of craft,’ according to the Philosopher. Therefore, craft is not a virtue” (*ST* I-II, q. 57, a. 3 (objection 2); trans. 1911–1925, with minor changes). Since Aristotle claims that there cannot be a virtue of a virtue, as this would lead to an infinite regress, and since he also claims that there is indeed a virtue of craft, that is an indication that craft cannot be a virtue.

In response to this final objection, the Picardian arts master says, recalling and expanding on a key aspect from his reply to the first objection, that

There is no virtue of craft insofar as craft is itself a virtue, but rather [there is a virtue of craft] insofar as it determines the intellect to true judgment. But craft surely requires a virtue with respect to external work, so that it is ordered to the good end, for in this way it could be ordered to opposites, and [in this way] it has more the mode of a power than that of a virtue, as has been said. (*QNE* VI 8)<sup>71</sup>

As we have seen, with respect to its internal work, craft guides the intellect to judge truly. In that sense, it is a virtue; and because, indeed, there is no virtue of a virtue, in that same sense, one cannot say there is a virtue of craft. However, when its external work is concerned, craft needs another (moral or practical) virtue, so that it can be ordered to the good. With regards to its external work, in its being able to waver between opposites, craft acts as a power, as it were; and it is in that sense that one could say that there is a virtue of craft, as this would be somewhat tantamount to saying that there is a virtue of a power, which would not entail the infinite regress denounced by the objection. And thus we come to the end of the objections and responses to them.

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<sup>70</sup>“Item virtutis non est virtus, quia sic procederetur in infinitum, sed artis est virtus, ut dicit Aristoteles.”

<sup>71</sup>“Ad ultimam dicendum est quod artis non est virtus in quantum ipsa est virtus, sed in quantum determinat intellectum ad verum iudicium, sed bene indiget virtute quoad opus exterius, ad hoc quod ordinetur ad bonum finem, quia sic erat oppositorum, et magis habeat modum potentiae quam virtutis, ut dictum est.”

## 19.4 Concluding Remarks: *Ars Sive Scientia* or *Ars Sine Scientia*?

We now turn to the question as to why *ars* seems to have been overlooked in current scholarship on medieval philosophy. Part of the reason seems to be the very status craft had back in the Middle Ages. Indeed, all of the above having been established, we are left with an account that presents craft seemingly as a “threshold virtue,” as it were. Craft is seen as a lesser virtue for at least two reasons: it ranks lower because it is a practical virtue, not a theoretical or contemplative virtue; and between the two practical virtues—namely, prudence and craft—craft also seems to rank lower. The justification for this appears to be standardly understood by scholastics, and is expressed in Ockham’s (c. 1287–1347) thought:

[...] the craft of building a house does not dictate that the house *should* be built, but that the house ought to be so composed from wood and stone or arranged in such-and-such a way. And accordingly it gives direction insofar as, *if* the house is built, it directs the builder to build it in such-and-such a way. (Ockham, *Rep* 3.12, OT VI 420.7–10; trans. in Matthew Dee 2019; my emphasis)<sup>72</sup>

So, while prudence can answer the question regarding *whether* a certain thing ought to be done, craft can only guide *how* it ought to be done, once it is established by considerations beyond those of craft *that* it ought to be done.<sup>73</sup> And it is thus also for Buridan, as we have seen: although craft is confirmed as an intellectual virtue by his reasoning, its role seems to be somewhat limited, as it is treated as a virtue of the factive intellect, and one which concerns the *factibilia*, which have a lesser standing than the objects of our practical deliberations and of theoretical contemplation.

Now, why would anyone, especially medieval philosophers, go to all this trouble of saving the status of craft as a virtue? The fact that Aristotle had counted it among the five intellectual virtues does bear some weight on Buridan’s reasoning, just as it did for other scholastics—hence Aquinas’ similar defense of craft as an intellectual virtue. But what is at stake here is the coherence of the scheme of intellectual virtues, so this is not simply a one-off defense of craft as a virtue. While the principles admitted in speculative sciences are either (i) intellectually (self-)evident principles known by the intellect through its natural light when it considers the meaning of the terms (Buridan, *QNE* VI 11), i.e. the principle of non-contradiction and the principle of identity, or (ii) principles known by means of the experience of many principles that cannot be known otherwise, or yet (iii) principles that are known by a process of reasoning, by deducing conclusions from principles (*QNE* VI 1),<sup>74</sup> the

<sup>72</sup>“Exemplum: ars faciendi domum non dictat quod domus sit *facienda*, sed quod domus debet componi ex lignis et lapidibus sic vel sic dispositis. Et ita dirigit quatenus, si domus fiat, dirigit facientem ut sic vel sic faciat.”

<sup>73</sup>Details of this distinction are found in Ockham’s division of practical knowledge into ostensive and dictative, as seen in: *Ord.*, Prol. Q. 11 (*OT* I, 316.8–317.2).

<sup>74</sup>“Alii autem dixerunt quod habitus intellectuales non generantur in nobis ex assuetudine, sed ex naturali inclinatione intellectus ad intelligibile quantum ad principia omnino prima, vel per expe-

principles admitted in practical sciences are *not* self-evident, and they require sensible experience and memory (*QNE* VI 1 and 9). These non-self-evident principles pertain to craft, prudence, and also to some speculative sciences. But unlike speculative knowledge, which can rely solely on evident principles or necessarily deducible conclusions, craft must do some internal work of synthesis from experience. According to Aristotle (*Met.* 981a), experience is able to merge many particular perceptions into one experience and gain knowledge of individual cases, all while merely seeing these individual cases as such and not exceeding their particularity. As Schneider puts it:

[Craft] recognizes, for the first time, proceeding from the similarities of observations [of particulars], what is generally inherent in them; thus, it is able to structure cases by kinds and has a *λόγος*—here, one may full well say “concept”—which allows for the subsumption of similar cases; even cases which are similar only in certain respects. It is only at this stage that the general is recognized in the many individuals, and the emancipation from immediate perception opens up the possibility of theorizing. (1994, p. 173; my translation)<sup>75</sup>

The properly contemplative, properly genetically intellectual side of *ars*, insofar as it pertains to the utmost rational part of the soul, is begotten from its ability to conceptualize (i.e., acquire a so-called universal) based on particular occurrences. Craft, thus, is not simply a routine repetition of an act, but entails a certain form of cognition, whence its status as an intellectual virtue:

Aristotle speaks of a real “knowledge” in this context for the first time when he considers the “architects,” those who employ *τέχνη* [i.e., craft], to be comparatively “wiser” with regards to those craftspeople whose actions are based merely on experience; [the former] are called wiser not because they know how to approach a given case better—this is not always the case and it is often not the case when dealing with individual cases—but rather because they have the *λόγος* and know the causes. (Schneider 1994, p. 173; my translation)<sup>76</sup>

So even though craft may seem like a minor virtue amongst intellectual virtues—for it is concerned with *factibilia* and the factive intellect, rather than with all that is

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rientiam quantum ad multa principia que aliter sciri non possunt, vel per doctrinam ratiocinativam deducendo conclusiones ex principiis [...].”

<sup>75</sup> “[...] sie erstmals von den Ähnlichkeiten der Beobachtungen ausgehend deren Allgemeines erkennt; damit vermag sie Fälle nach Arten zu gliedern und verfügt über einen *λόγος*—hier darf man wohl ‘Begriff’ sagen—der die Subsumption artgleicher, mithin bloss in bestimmter Hinsicht ähnlicher Fälle erlaubt. Erst auf dieser Stufe wird an dem vielen Einzelnen das Allgemeine erkannt, und mit der Emanzipation von der unmittelbar gegebenen Wahrnehmung wird die Möglichkeit der Theoriebildung eröffnet.”

<sup>76</sup> “Auch von einem wirklichen ‘Wissen’ spricht Aristoteles in diesem Zusammenhang erstmals, wenn er die ‘Architekten,’ diejenigen, die über die *τέχνη* verfügen, gegenüber den Handwerkern, deren Tun bloß auf Erfahrung beruht, für vergleichsweise ‘weiser’ hält; und nicht weil sie einen gegebenen Fall besser, erfolgreicher anzugehen wüßten, heißen sie ‘weiser’—das muß keineswegs immer so sein und ist es ausdrücklich gerade beim Handeln, das auf den Einzelfall zielt, oftmals nicht—, sondern weil sie über den *λόγος* verfügen und die Ursachen kennen.”

proper to the practical and speculative intellects,<sup>77</sup>—it is still important insofar as it has something in common with speculative habits, as noted above.

Although both Aquinas and Buridan deal with the question of whether craft is a virtue, Buridan's treatment of this question merits consideration when compared to Aquinas' mainly on two grounds. First, it is significantly longer than Aquinas': while the *Doctor Angelicus* only raises three objections to his view in his *quaestio*, Buridan raises five and proceeds to offer us a sturdier thesis, which is capable of accounting for all of them. Furthermore, Buridan's reply to the question includes more detail about this virtue and how it finds its seat in the intellect. Second and most importantly, the Picardian arts master also gives craft a broader scope than Aquinas does, allowing its influence to extend beyond the realm of the factive intellect to reach the appetite.

Hence, a first answer to the question as to why craft seems to have been overlooked since the Middle Ages when compared to the other virtues emerges from the discussion above, and the weight it is given by different medieval philosophers: even if *ars* is a virtue, it is not a virtue of humans qua humans independent of other virtues; and, more importantly, because it concerns *factibilia*, and not contemplation, it ranks lower (or lowest, one might argue) within our philosophical hierarchy. But there is more to this discussion than meets the unsuspecting eye. That *sapientia* and *prudentia* both deserve special places on the podium of virtues seems uncontroversial due to their status as, respectively, a purely contemplative virtue, synonymous with philosophy itself, and the manager of moral virtues. *Intellectus*, in turn, being the *habitus* of first principles,<sup>78</sup> is also warranted a prominent position. But what of *ars* and *scientia*? Why should the latter have precedence over the former for medieval philosophers?<sup>79</sup>

This sort of primacy of *scientia* over *ars*, against common belief, is not something that arises in modernity, nor with the advent of the Renaissance. The medieval discussion we find on what the terms refer to and how they were interpreted divergently in different contexts can actually be traced back to the Early Middle Ages (Włodek 1994, p. 57). Later, in the fourteenth century, we eventually come to Jean Mignot's adage that "*ars sine scientia nihil est*" (*apud* Robert 2017, p. 35), which, despite not always applying particularly strongly to the *philosophical* discussion of that time (see Robert 2017), does count as a representation of how craft was *generally* perceived.<sup>80</sup> As Lafleur notes (1994, p. 55), already in the thirteenth century,

<sup>77</sup> Here we must also recall that Buridan had paraphrased Aristotle, in the very beginning of *QNE* I 1, to remind us that "*nobilis et excellens est virtutum speculatio adhuc multo nobilior et multo melior est virtutem operatio.*"

<sup>78</sup> Cf. Aristotle, *NE* 1141a6–8 and, e.g., Aquinas, *ST* I-II, q. 50 a. 4 and Buridan *QNE* VI 11.

<sup>79</sup> This question concerning the separation and ranking of *ars* and *scientia* would also be particularly relevant to current philosophical debates, since technology and science, in our current understanding of those terms, are not only ubiquitous but also seem to go hand in hand in our society, one necessarily depending on the other.

<sup>80</sup> However, *contra* Robert (2017), I suggest that we not only consider *what kind* of treatment *ars* is given but *how often* it is taken as an object of study in the Middle Ages.

e.g., in the *Philosophica Disciplina* of 1245 written by an anonymous Parisian arts master, the frequency of use of “*ars*” and “*scientia*” carried some weight. Whereas the latter is found recurrently throughout that work, the former is seldom present, except in set phrases, serving mainly two purposes: in one sense, such as in the expression “*ars dicendi*,” it connotes a weaker epistemological status than *scientia*; in another, when used in expressions such as “*artes liberales*,” it is supposed to denote more rigour (especially once physics, metaphysics and poetics were added to the liberal arts), which would therefore legitimize the role of the *magister artium* in the university.

Just as it may seem obvious to us, albeit merely intuitively—and perhaps unjustifiably so—that craft and (scientific) knowledge are not the same thing, this distinction also did not seem to be a particularly tricky one for Buridan either, for he only dedicates a short section to it:

One could raise a question about how knowledge (*scientia*) will be able to differ from craft (*ars*) and prudence (*prudentia*), when knowledge is allowed to be about contingent things, just as craft and prudence? I reply that although knowledge deals with external contingent things, yet in another way it is also concerned with non-contingent conclusions and propositions and things [...]. And craft and prudence are about contingent conclusions and from contingent propositions, namely those which could be otherwise, or others which could be false. The physician concludes that this patient must not drink tomorrow, and this conclusion turns out to be false. Therefore, he will conclude the opposite, and will give him wine because of the variety of the matter and of the circumstances of the singular, which the craftsperson and the prudent person ought to consider, but not the knowledgeable person and the wise person. (*QNE VI 6*)<sup>81</sup>

We can see that this issue concerning the distinction between *ars* and *scientia* emerges in the sixth question of the *QNE*, two questions prior to the one concerning *ars* as an intellectual virtue. Although *scientia* may deal with contingent things, it is not necessary that it do. The *artes*—and also *prudentia*, for that matter—necessarily deal with contingents. Thus, *ars* concerns lesser things in the hierarchy of beings, because it is about less difficult, more readily accessible things than those dealt with by *scientia*, *intellectus* and *sapientia* (which are based on principles). Nevertheless, *ars* is actually concerned with a wider array of things considered in light of general guidelines, and a thoroughly specific account of it and all of the contingent *factibilia* and *facienda* it entails is impossible to give. This could be one of the reasons why relatively little attention is given to craft as an intellectual virtue, and only a cursory treatment of it seems to suffice for the purposes of the *QNE*.

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<sup>81</sup>“Sed adhuc aliquis poterit dubitare, quomodo scientia poterit ab arte et prudentia differe, cum ipsa concedatur versari circa res contingentes, sicut ars et prudentia? Respondeo quod licet scientia sit de rebus extra contingentibus, est tamen de conclusionibus et propositionibus non contingentibus aliter se habere ... Ars autem et prudentia sunt de conclusionibus contingentibus et ex propositionibus contingentibus, scilicet quas contingit alibi, vel alias esse falsas. Concludit enim medicus modo quod iste infirmus non debet bibere cras, haec conclusio erit falsa. Ideo concludet oppositum, et dabit ei vinum propter varietatem materiae et circumstantiarum singularium quas oportet considerare artificem et prudentem, non autem scientem et sapientem.”



Thus, late medieval philosophers appear to have had at least two reasons to allot less scholarly effort and/or fewer *quaestiones* to craft as compared to the other intellectual virtues. First, craft is considered a lower virtue because of its scope, dealing with the most mundane things of which humans are capable (i.e., production), which are situated at the polar opposite of the divine things to which we ought to aspire in our quest for *eudaimonia* (the ultimate aim of the *Ethics*). Second, precisely because those mundane things are, by definition, contingent, the scope of craft is also infinitely wide and complicated, for even things which appear similar can be contingently unique, which indicates that it would be impossible for any philosopher to provide an exhaustive account of the virtue craft. And, even if such an endeavour were possible, it would be a gargantuan task to undertake on behalf of such an “inferior” virtue.

While *ars* might still need a suitable rehabilitation by looking at other philosophers’ accounts of it so that its role in the “pantheon of virtues” can be properly restored, the examination above has hopefully shown that this subject is worth pursuing—if not for itself, then at least insofar as it may help give us a broader understanding of late medieval virtue theory, and possibly even enlighten our current understanding of the relationship between craft and (scientific) knowledge as they pertain to our development and use of technology and how each of them is or ought to be connected in any way to the good, be it in an epistemic or moral sense.

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