Practical Rationality in the *Nicomachean Ethics*: An investigation into the use of craft analogies in relation to practical wisdom (*phronesis*) and happiness (*eudaimonia*)

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Practical Rationality in the *Nicomachean Ethics*:
An Investigation into the Use of Craft Analogies in Relation to Practical Wisdom (*phronesis*) and Happiness (*eudaimonia*)

Honours Dissertation
Philosophy

of
Tom Vanderveen

Supervised by
Philip Matthews

Presented 24/10/2008
Declaration of Authorship

This thesis is my own work and contains no material which has been accepted for the award of any degree or diploma in any other institution. To the best of my knowledge the thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

Tom Vanderveen

Date 24/10/2008
ABSTRACT

This thesis is an investigation into Aristotle’s use of craft analogies in the *Nicomachean Ethics*, as instructional to his concept of practical wisdom and happiness. For Aristotle, ethics is predominantly a practice, thus the focus is on practical rationality rather than theory. For this reason, Aristotle’s discussion of ethics lends itself to the use of craft analogy, in that craft is a practice. It is argued that while being a good pedagogical tool, craft analogies fall short, because they do not cover the full gamut of human experience.
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INTRODUCTION

In the *Nicomachean Ethics* (NE), Aristotle tries to provide an account of how the good person should live. The NE is not concerned with what the good person should know, but what he or she should do. For Aristotle, philosophical ethics is practical in that we seek to know what the good life is so as to live better. Throughout the book, Aristotle regularly uses examples from various practical crafts, like medicine, building and music, when discussing ethical concepts like happiness and virtue, thus the practical nature of the craft examples are central to his discussion of ethics as a predominantly practical study.

This thesis explores the pedagogical efficacy of these craft examples in the NE, asking whether and to what extent the examples clarify and further inform Aristotle’s position on human flourishing and the concept of wisdom in its relation to rational deliberation. It is argued that Aristotle uses the craft examples as a learning tool in a deliberate and purposive way, to enable his students to gain a deeper understanding of the lectured subjects. It is argued that while being a good pedagogical tool, craft analogies fall short, because they do not cover the full gamut of human experience.

To be able to reach a value judgment on the effectiveness of the craft examples within Aristotle’s discussions, one first needs to get an insight into the way Aristotle understood the concept of craft.

Chapter 1 achieves this aim through a general investigation of the instructional aspects of craft, specifically Aristotle’s typology and hierarchy of craft and how the differentiation he uses draws out different aspects of craft, in terms of aims. It is shown that the different aspects themselves serve as analogies for different aspects of ethics.
Chapter 2 shows how Aristotle uses the concept of craft to introduce moral excellence as an aspect of practical rationality in terms of its importance in forming a foundation from which rationality can operate. The analogy indicates that learning how to become a craftsman is similar to learning how to become a moral agent, (i.e. that learning is predominantly in the practice of the craft itself). Aristotle’s distinction between deliberation, decision and perception¹ (as aspects of the moral life) is investigated and it is argued that craft analogies are most effective in relation to deliberation, moderately effective in relation to decision and much less effective in relation to perception. That Aristotle is himself aware of this, is evident in how he uses craft analogies in relation to these aspects of practical wisdom.

Chapter 3 looks at the concept of eudaimonia which is central to Aristotle’s understanding of the good life. It is recognised that this concept is notoriously difficult to define, due to its inherent vagueness. It is argued that practical wisdom does not produce happiness, but that happiness emerges out of practical wisdom in action.

Finally it is concluded that craft is a good instructional tool to get one to a certain level of understanding, but beyond that it is over to the individual, and that Aristotle recognises that the imprecision of the craft analogy as relative to the inherent imprecision of the study of ethics.

Given that the subject matter contains great irregularity and variations, generalisations can be true, but only for the most part. In outlining his method Aristotle states:

_We must be content, then, when talking about things of this sort and starting from them, to show what is true about them roughly and in outline, and when talking about things that are true for the most part, and starting from these, to reach conclusions too of the same sort. (1094b20-22)_

¹ This is made clearer by the introduction of the state of affairs craft.
This thesis does not attempt to exceed the level of accuracy indicated by Aristotle. It acknowledges that while accounts of the moral life can be rough and in outline, this does not necessarily lead to inquiries and investigations that are rough and imprecise. Within the limits set by the study of ethics, this investigation will be as thorough in nature as possible with the limits will be clearly acknowledged.

This investigation is based on a close reading of the *Nicomachean Ethics* (2002), translated by Christopher Rowe with an introduction and extensive commentary by Sarah Broadie, as the primary text itself. It is acknowledged that the use of the text in translation can be the cause of complications, especially as the correct interpretation of specific terms is important for the current inquiry. The *Nicomachean Ethics* (1953) translated by J.A.K. Thompson, is used to crosscheck the initial examples marked in the main translation. To overcome the possible shortcomings in using a translation, minimal contextual interpretation has been applied in recognising and selecting entries in relation to craft.
CHAPTER 1 – CRAFT ANALOGIES IN THE NICOMACHEAN ETHICS

It is true that a certain variety is to be observed among the ends at which the arts and sciences aim: in some cases the activity of practising the art is itself the end, whereas in others the end is some product over and above the mere exercise of the art; and in the arts whose ends are certain things beside the practice of the arts themselves, these products are essentially superior in value to the activities. (1094a1-7).

Aristotle uses craft analogies extensively throughout the Nicomachean Ethics to illustrate a variety of concepts central to his discussion of ethics. Some examples, such as the craft of medicine, are used in different context, and while this indicates the versatility of the craft analogy, it has caused some confusion amongst commentators of the NE.²

This chapter investigates the number of times that craft analogies are used in the NE. The aim of this investigation is to ascertain whether there is any particular pattern in the way that Aristotle uses craft analogies. It is shown that Aristotle argues that crafts have a variety of ends (teloi). The end of some crafts is a product, such as when a shoemaker makes shoes. The end of others is a performance, such as when a cithara player entertains an audience. The end of still others is a state of affairs, such as health being the end of medicine, or a civil society being the end of politics. Aristotle also claims that there is a hierarchical relationship between crafts (1094a11-20). For instance, the end of a shoemaker is a subordinate end to that of a politician.

The final section of this chapter will introduce the connection that Aristotle draws between the craft analogies and the broader concepts of practical wisdom (elaborated in chapter 2), and happiness (elaborated in chapter 3).

² Medicine is used in the context of the craft hierarchy in 1094a6-14, in the context achieving moral excellence in 1105b12-16, in the context of practical wisdom in 1138b26-32 and in the context of continence in 1148b7-11.
Section 1: Reconstruction of Craft Analogies from the Nicomachean Ethics

Aristotle uses the concept of craft in different ways and in different contexts. For example, he uses analogies of both crafts and craftsmen; such as the craft of medicine itself, and doctors as its craftsmen, generalship and generals, building and builders (see appendix 1).

Again, since in relation to the things corresponding to a single form there is also a single kind of knowledge, there would also be some single knowledge of all goods; but as it is there are many kinds of goods falling under a single category, as for example there are many kinds of knowledge of the right moment, since in war there is generalship, and medicine in the case of disease, while for the moderate amount there is medicine in diet and athletic training in physical exertion. (1096a30-34)

Aristotle also uses specific craftsmen, such as Polycleitus, a well known sculptor to illustrate to his students how the end of a statue is connected to the craft of sculpting (1141a11).

There are 233 examples of the use of words that translate to ‘craft’, ‘skill’, ‘science’ or ‘expertise’ in the NE (see Table 1). Of these, 49 specific crafts are mentioned as such. The specific term ‘technical expertise’ or the more generic ‘expertise’ appear most often, at 35 instances followed by ‘doctor’ and ‘political expertise’ both at 21 instances. Examples of crafts that appear only once are ‘shipbuilding’ (1094a9), ‘bridle-making’ (1094a11), ‘business’ (finance) (111261-7) and archery (1094a23).

Throughout the NE, the craft examples occur more frequently in certain books. The most examples, 65, are found in Book 1. Book 6 follows with 50 examples, then Books 2, 5 and 10 with 31, 24 and 25 examples respectively. Book 7 has 14 examples. Book 9 has 8 examples and Books 4 and 8 have only 3 and 2 respectively.

It is necessary to say something here about how the topics of discussion in the NE are separated in terms of its division into books and chapters. Hughes argues that Aristotle almost
certainly did not divide the NE into separate books and chapters himself.3 This is perhaps most evident in the fact that the topics under discussion in the NE do not fit neatly into discrete parts; for instance, the discussion on moral virtue runs over separate books.

The majority of craft examples, 195 out of 233, appear in Books 1, 2, 5, 6, and 10. In Book 1, Aristotle investigates the goals and hierarchy of crafts, the method he is using in the general discussion, and happiness. Book 2 deals with moral virtues in general, pleasure and pain, and the Doctrine of the Mean. The main topic of Book 5 is the moral virtue of justice. Book 6 discusses the intellectual virtues and Book 10 deals with the life of happiness, pleasure and contemplation.

The rest of the craft examples appear in Books 3, 4, 7, 8 and 9. The subjects discussed in Book 3 are the nature of action (voluntary, involuntary and non-voluntary), moral conduct, deliberation and the moral virtues of courage and temperance. Book 4 deals with a discussion of the various moral virtues as liberality, magnificence, modesty, attitudes towards honour and social virtues. Book 7 deals with continence, incontinence, as well as pleasure and pain, and Books 8 and 9 deal predominantly with friendship.

There seems to be a balance in the way Aristotle uses examples of craft or examples of craftsmen. Examples of craft and craftsmen are 128 versus 105, however in terms of the context of use, no particular preference shows. In relation to certain subjects, like happiness and the human good, Aristotle seems to have used more craftsmen examples over craft, but no further conclusions can be drawn from this observation.

Section 2: Teleological Variations in Craft

Every sort of expert knowledge and every inquiry and similarly every action and undertaking, seems to seek some good. Because of that, people are right to affirm that the good is 'that which all things seek'. But there appears to be a certain difference among ends: some are activities, while others are products of some kind, over and above the activities themselves. Where there are ends over and above the activities, in these cases, the products are by their nature better than the activities. (1094a1-6)

Aristotle differentiates between crafts in regards to goal of the craft or the end that they seek. The following analysis will reconstruct the three different types of ends that Aristotle uses in his analogies. These comprise of crafts whose end is a product; crafts whose end is in their performance, and crafts whose end is a state of affairs.

Some crafts aim at external products

The goal of crafts that aim at an external product is to produce a particular thing at the end of the process. These crafts deal with making or fabricating. Arendt describes fabrication as reification, the process where abstract concepts become material and achieve solidity. The producer works on or with some kind of material and this material gives the product its solidity and durability to exist as a thing in the world. The product is in general separable from the fabrication process, and the product gives the activity of making its aim or end (telos). Examples of crafts with external ends that Aristotle mentions in the NE are building, shoemaking, shipbuilding, carpentry and bridle-making.

The first aspect of crafts that Aristotle identifies as those which aim at an end product is the concept of precision

For precision must not be sought to the same degree in all accounts of things, any more than it is by craftsmen in the things they are producing. (1094b13-14)

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For a carpenter and a geometer look at the right angle in different ways: the one looks for it to the extent to which it is useful towards his product, while the other looks for what it is, what sort of thing it is; for his gaze is on the truth. (1098a29-32)

Precision seems to be integral to all forms of craft. The concept of precision implies attention to detail, measuring, and the use of implements to introduce consistency and accuracy. Precision minimises the risk of the failure of the product and enables the craftsman to produce a better product.

For example, imagine trying to build a house without precision. Without the use of precision tools such as a measuring tape, plumb lines, or a set square, the constructed house would probably have walls that are not square or straight, leading in turn to ill-fitting doors and windows. The house would likely be structurally unsafe though perhaps could still function as some kind of shelter from the elements; however, it could not be called a good house, to which the craft of building aims.

Aristotle takes for granted that the concept of precision is implied in the concept of a craft, but argues that there are different degrees of precision (1094b15). One could recognise that there are differences in levels of precision between crafts that produce things, as, for example there is a difference between working with material such as stone, wood, or leather. Tools used to carve stone will be large when the stone is used in building and fine when the stone is used for sculpting. In carpentry, different degrees of precision are applied for roof beams or fine cabinet work.

The difference in degree between crafts is shown in the example a carpenter and a geometer. For the carpenter, a right angle is good when it suffices for the job he is doing, but for a geometer a right angle can only mean an exact 90 degree angle, and any deviation from that figure would mean that the angle is no longer a ‘right’ angle. Thus there is a difference in precision between crafts, or even within crafts, depending on the product one is producing.
Aristotle states that looking for more precision than is practically required is unnecessary (1094b23-26).

However, it could be pointed out that crafts evolve through searching for more precise ways of doing things. The search for more precision within a craft leads to innovation and the production of different tools capable of making products finer, stronger or faster without loss of quality. It could be pointed out that by accepting an adequate level of precision in Aristotle seems to be accepting lower standards that could be improved upon. Searching for greater precision however still admits of degrees in relation to the telos of the craft.

The second aspect of productive crafts identified by Aristotle is that the quality of the producer is reflected in the product that is produced.

Again, neither do the case of the skills and that of the excellences resemble each other; the things that come about through the agency of skills contain in themselves the mark of their being done well, so that it is enough if they turn out in a certain way. (1105a26-29)

Nussbaum argues that through the activities performed by the craftsman a thing is produced which can be identified and specified independent from the craft or its activities. This thing or product is external to the craft and has solidity and durability. For example, a house is the product of the craft of building and a pair of shoes is the product of the craft of shoemaking. One needs little knowledge of the activities internal to the craft of building to identify a house, or of shoemaking to identify a pair of shoes.

Aristotle argues that the products of a given craft contain in themselves the mark of being done well; thus the quality of the product reflects the quality of the craftsman (1105a26-29). If the craftsman has properly performed the activities necessary within the craft to make the

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product, the product will show this as being a 'good' product. However, because others can define the product as 'good', the assessment of its quality can be made at various levels.

For example, in the craft of pottery, the first person to assess the quality of the product (a vase) is the potter. She would ascertain whether the vase fulfils the requirements set by standards that are internal to the craft of pottery. A vase should not leak, it should hold both hot and cold liquids, it should be easy to carry, and it should be easy to store. Fellow potters might make a different type of assessment concerning the quality of the vase. They judge details such as the level of intricacy in the vase’s ornamentation for instance. This type of assessment incorporates aesthetic detail which is over and above the level of detail required for analysing the good function of a vase.

The eventual acquisition of the vase is made based on an assessment of its functional quality first and other qualities second, assuming the vase is not made for ornamental purposes only. No specific knowledge of the process of its making (in the craft of pottery) is required here to ascertain whether the vase fulfils its function as a vase. Similarly, knowing the identity of the maker has no bearing on an accurate judgement of the quality of the product even though her craftsmanship is still recognisable in the product itself. The vase is judged as object only, separate from any knowledge about thoughts, feelings or intentions of the maker producing it. The product transcends the process as a physical entity, and can be assessed as such over time due to its physical durability, and in different places according to the fact that it can be moved or transported. Thus the vase, once brought into existence, takes on its own ‘identity,’ its own uniqueness, and its quality is judged as such, solely as an object.

The third aspect of productive crafts identified by Aristotle is that the production process is different in kind to the product.
A general argument, then, for saying that it is not a good is that all pleasure is a perceived process of coming to be in the natural state, but no process of coming to be belongs to the same kind as the end to which it leads, as e.g. no process of housebuilding belongs to the same kind as a house. (1152b12-15)

For every movement involves time, and relates to some goal, as does e.g. the movement that is building, and it is complete when it finally does what it aims at. So that will be either in the whole time, or in this. But if it is divided up into temporal parts, the resulting movements are all incomplete, and distinct in form both from the whole and from each other; for the putting together of the stone blocks is distinct from the fluting of the column, and both of these from the making of a temple— and the making of a the temple is a complete movement, since it is not lacking anything required for the task at hand, whereas at the base, and of the triglyph, in incomplete, since each of these is a making of a part. (1174a20-28)

Aristotle makes it explicit that the product is separated from the craft that produces it, so the process of house building is different in kind to its product (the house). Every activity in the building of the house involves time and can be divided up into smaller temporal parts and separate ends. For instance the house requires a foundation first, then the walls need to be built, and then the roof goes on last. All these activities are incomplete in relation to the building of a house, but they all have their own goal. These activities are also distinct from each other but they are all necessary for the end product.

The relationship between the process and the product does seem more intricately related than Aristotle implies. Aristotle argues that building is the movement or craft, the house is the product and the activity is complete ‘in the whole time’ when the house is finished (1174a22). The builder must appreciate each distinct activity for what it is. The goal is a complete house, but each activity requires precision and process. The craftsman must also be capable of judging the quality of the separate parts in their own context. By ensuring that all separate parts are of the best possible quality, he would reasonably expect that the end product would be of good quality.

The distinct steps in the process are cumulative. Laying the foundation and doing the roof tiling can be done separately, but in the overall scheme of building one necessarily needs to
follow the other, otherwise there could be no end product. There is a specific order in which the distinct elements need to eventuate, as some elements depend on the existence of others. This hierarchical relationship will be further investigated in section three of this chapter.

As shown above, the product can be judged independently from the craft or the craftsman. However, while a good process does not necessarily produce a good product, because the materials used by the craftsmen might turn out to be faulty, a good product implies a good process.

This investigation of the three aspects of productive crafts has resulted in establishing the importance of precision and the understanding that the product or end of the craft is separate and objectively independent from both producer and process, but that the quality of both is reflected in the product. The next investigation is into crafts that have an internal performance as end.

**Some crafts aim at an internal performance**

The end of performance crafts is less defined than those of the productive crafts. For instance, the end of piano playing is playing the piano well. These crafts produce no tangible asset after the exercise of the craft has ended (1094a4). Although Aristotle mingles the analogy of the cithara player with that of the builder, in this section the focus is on the performance craft of cithara playing.

> Whereas we acquire the excellences through having first engaged in the activities, as is also the case with the various sorts of expert knowledge – for the way we learn the things we should do, knowing how to do them, is by doing them. For example people become builders by building, and cithara-players by playing the cithara. (1103a32-35)

> Again, it is from the same things and through the same things that every excellence is both produced and destroyed, and similarly every expertise; for it is from playing the cithara that both good and the bad cithara-players come about. So too both with builders and the rest: good building will result in
good building, bad building in bad ones. If it were not like this, there would be no need at all of anyone to teach them, and instead everyone would just become a good builder or a bad one. (1103b8-12)

One could pick up a cithara, pluck the strings, and the instrument will produce a sound. To produce different sounds, the fingers need to be placed on the strings and on the neck to change the pitch. Complete novices can do this but the sounds they produce are unordered, and chaotic. In the hands of a skilled cithara player the instrument can produce wonderful sounds that are pleasing to the ear. Nussbaum argues that skill imposes a form of order on a previously unordered continuum of sound.⁶

The craft of cithara playing has a purely internal end, which is the skilful activity of playing. No durable, reified products are produced by this kind of craft. Dunne argues that by describing these activities, Aristotle loosens the connection between craft and an external product, since a description of the end of cithara playing would involve a description the dexterity of the musicians’ hands, an account of their creativity, as well as a description of the instrument itself. Unlike the previous example where the end is separate from the craft, here the individual is an essential part of the final end of these crafts.⁷

To become a good cithara player, one needs to be capable of making basic hand and finger movements. One also needs to able to differentiate between tones the instrument can produce and hear when it is in tune. A good teacher who can instruct, guide and encourage the player, is helpful and important, especially at the beginning of the process, as the basic skills need to be learned properly.

Skill is trained practice, and through repetition skills improve, but the way in which the repetition is organised is important. Aristotle argues that practice needs to be of a certain

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⁶ Nussbaum, p.97
quality (1104b23). The teacher would try to avoid purely mechanical responses from the student, as this will only develop the skill to a certain level. The student needs to be able to discern good and bad playing and one way of achieving this is by encouraging the student to listen to other cithara players.

Through increased practice routines will develop and complicated sets of procedures become habituated. The player moves from merely playing, to experimentation with phrasing, variations or improvisations. At this stage the player is also capable of self-correction, which is itself a learned skill. If others adjudicate that the playing is worthy of being listened to, the player has reached the level of a skilled craftsman in the craft of cithara playing.

Aristotle seems slightly casual in his remarks that a cithara player becomes a cithara player merely by playing. A cithara player only becomes a good cithara player by practice, determination, skill and an interest in making beautiful music. Not every person who wants to become a good cithara player will succeed. Lack of natural ability, lack of determination, lack of interest or lack of teaching are various possible reasons why certain people become good players and others fail.

The next aspect of craft investigates is the search for intermediacy.

But the intermediate relative to us should not be taken in this way; for if ten minae in weight is a large amount for a particular person to eat and two a small amount, the trainer will not prescribe six minae, because perhaps this is too large for the person who will be taking it, or small—small for Milo, large for a person just beginning his training. It is in this way, then, that every expert tries to avoid excess and deficiency, and looks instead for the intermediate, and chooses this; the intermediate, that is, not in the object, but relative to us. It is in this way that every kind of expert knowledge completes its function well, by looking to the intermediate and guiding what it produces by reference to this. (1106b1-9)

Excellence, then, is a disposition issuing in decisions, depending on intermediacy of the kind relative to us, this being determined by rational prescription and in the way in which a wise person would determine it. And it is intermediacy between two bad states, one involving excess, the other involving deficiency. (1106b36-1107a4)
Aristotle states that for everything that is continuous and devisable, it is possible to find greater, lesser or equal amounts, either to the object itself or to us as human beings (1106a26-28). The equal is an intermediate between what falls short and what exceeds. This intermediate is absolute in relation to the object, but can be relative to humans. For example in music, if ten strings are counted as many and two strings as few, six is the absolute mathematical intermediate with reference to strings.

The intermediate relative to humans is different. In the case of the athletic trainer, if 800 grams of food is too much to eat for one athlete and 200 grams is too little, then 600 grams is the absolute intermediate in relation to food for an athlete. However, this intermediate amount cannot be prescribed for all athletes indiscriminately. Some have only started to train, others have been in training for years. Some athletes train for sprinting, some for long distance running, other athletes for throwing the discus or for wrestling. The appropriate amount of food depends on the individual requirements of the athlete and a good trainer would recognise in each particular case what the excess or deficiency is for an athlete and prescribe the correct amount of food to enhance their athletic performance.

In the case of music, a skilled musician recognises when certain passages within a musical piece need to be played loud or soft, or at a certain tempo to lift the level of the musical performance. In horsemanship, the experienced horseman knows to select a horse that is not too dull or too spirited, when to apply the whip or when to encourage the horse, and when the horse needs to gallop or when to walk. In archery, the skilled archer knows to draw the bow firm but not too hard, to aim not too high or low, to release the arrow not too fast or too slow. The concept of intermediacy can relate to all crafts in that every expert tries to avoid excess and deficiency to achieve good results.
The concept of intermediacy does not by itself serve as a guide to the expert in a particular situation. For the athletic trainer, to be able to aim at intermediacy in each particular case, implies that he already has some concept of a good athletic performance and recognises what is excessive and deficient in a particular situation for a particular athlete compared with that concept of good performance. The concept of a good performance in a particular sport is not absolute, but changes over time. With training athletes can begin to jump further, run faster, throw further, lift heavier weights so that with every new personal best performance the overall concept changes. The trainer needs to be able to keep adjusting his own understanding of the concept of good athletic performance when necessary, and on that basis will adjust the training regimes for his pupils to enable them to aim at the new standards. A trainer who is able to keep adjusting training regimes to get the best possible performance out of his pupil would need to be a master in his craft.

It has here been shown that Aristotle’s investigation into performative crafts draws out two important aspects of craft. These are the concept of habituation, the learning of a skill over time; and the importance of the concept of intermediacy. These two aspects do not appear to be exclusive to performative crafts only. The next investigation concerns the third teleological variation in craft, where some crafts aim at states of affairs.

**Some crafts aim at a ‘state of affairs’**

This third teleological variation in craft is not recognised by Aristotle, but commentators like Dunne and Nussbaum have argued compellingly that introducing this classification could further enlighten the use of craft analogies by Aristotle in his discussion of ethics.\(^8\) This particular classification is introduced as certain crafts are productive, but their product is not

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\(^8\) Dunne coins the phrase ‘state of affairs’ craft and argues for this in Chapter 8 of *Back to the Rough Ground: *Phronesis* and *Technē* in Modern Philosophy and in Aristotle*. Nussbaum argues for a similar term in Chapter 4 of *The Fragility of Goodness: Luck and Ethics in Greek Tragedy and Philosophy*. 
tangible and at the same time these crafts could not be classified as activities only. Examples of crafts that fall under this classification are medicine, politics, navigation and generalship.\(^9\)

Aristotle states that the aim for medicine is health (1094a9), the aim for politics is good government (1094a28-b2) and the aim for generalship is victory (1094a9). Dunne argues that these products differ in kind from other craft products like a house, shoes, clothing or a sculpture.\(^{10}\) Good health and good government appear more vague, less precise, and can be less defined than a good house or a good pair of shoes. Medicine and politics also differ from musicianship, as health and good government should endure after the exercise of the craft has ended, whereas the musical performance only lasts while the craft is exercised.

There is also a difference in the material that ‘state of affairs’ crafts deal with. Instead of working with disposable materials upon which preconceived forms can be impressed, as in the case of building, the materials in ‘state of affairs’ crafts seem to have a dynamic quality and remain largely unfixed. The human body, the oceans and winds and the population of the city differ in kind from materials like wood, stone and leather.

The craftsman in a ‘state of affairs’ craft does not seem to have mastery or domination over the materials in his craft. The craftsman achieves successful results by responding with flexibility to the dynamism of the material. Due to the material’s unpredictability, the craftsman in ‘state of affairs’ crafts cannot impose a preconceived form on the material, but the craftsman must be able to recognise when the material reveals opportunities and then act quick and decisive. For instance, in battle a general recognises that the opposing army has made the mistake of leaving their flanks unguarded. A swift decision by the general to engage his cavalry to attack the opposing army on those flanks could ensure victory. As will be discussed in chapter two and three, the concepts of practical wisdom (\textit{phronesis}) and happiness

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\(^9\) Dunne, p.255.  
\(^{10}\) Dunne, p.256
(eudaimonia) can be understood with greater clarity in comparison with crafts that fall under the 'state of affairs' classification.

Because of the dynamic nature of the material in the 'state of affairs' crafts, the craftsman cannot have complete knowledge of the situation when the craft is exercised.

Things in the sphere of action and things that bring advantage have nothing stable about them, any more than things that bring health. But if what one says universally is like this, what one says about particulars is even more lacking in precision; for it does not fall either under any expertise or under any set of rules—the agents themselves have to consider the circumstances relating to the occasion, just as happens in the case of medicine, too, and of navigation. (1104a3-10)

In this analogy, Aristotle combines medicine and navigation as crafts that deal with imprecise particulars. In the case of medicine, the aim would be health, the dynamic material is the human body, and the particular is an individual who lacks health however that lack is described; be it a headache, a cut, or swollen feet. In general, the physician needs to have solid knowledge of the workings of the whole body, and this knowledge is permanently under revision as new diseases as well as cures are constantly found. The physician uses the knowledge as a framework only in which a particular diagnosis is made for a particular patient, taking into account all the individual circumstances of the case with all its own complications. No two cases appear to be identical. Even for cases such a common cold, or a broken leg there are particular individual circumstances. The person with the cold might actually have an allergic reaction, but the symptoms appear to be similar to a cold. Each case has to be dealt with on its own merits, albeit within the framework of attaining health for the patient.

In the case of navigation, the aim of the craft is safe harbouring, the dynamic materials are the oceans, the wind and the weather in general. The particular is the ship delivering goods from one harbour city to another. The navigator needs knowledge of the currents, of general weather patterns, and of the sailing capabilities of the vessel, both when it is empty and when
is carries a cargo. This knowledge is used as a general framework in which the navigator makes decisions about where to steer course. Every crossing is different, even if the navigator has many times made the crossing, in the same vessel, and carrying the same cargo. Ocean currents can change rapidly, the weather is unpredictable, winds change and storms can appear within short timeframes. The navigator makes decisions, within the framework of his general knowledge, that are correct for the particular situation the vessel finds itself in order to ensure a safe passage.

Both the crafts of medicine and navigation indicate that although there are rules guiding the craftsmen within these ‘state of affair’ crafts, in the exercise of their craft the craftsmen never has complete knowledge or mastery of their situation and their craft actually lies in the fact that they are capable of interacting and responding with flexibility to the challenges of working with material that is dynamic and always changing.

In this section, crafts have been discussed in relation to their goal or end and have shown various aspects that can be used as analogy with excellent activity. The productive crafts have served to show precision and the separation of the product from both producer and process. It has also been shown that the quality of the product made by these crafts can be assessed objectively and independently from the producer. The performative crafts have served to show the concept of habituation or learning over time and the concept of intermediacy, although it appears that these two aspects are not particular to performative crafts only, but have validity for all crafts. The ‘state-of-affairs’ crafts have shown that it is not always possible to have full knowledge of particular situations. In the next section, the hierarchy of crafts is discussed.
Section 3: Hierarchy of Ends within Particular Crafts

Every sort of expert knowledge and every inquiry and similarly every action and undertaking, seems to seek some good. Because of that, people are right to affirm that the good is ‘that which all things seek’. But there appears to be a certain difference among ends: some are activities, while others are products of some kind, over and above the activities themselves. Where there are ends over and above the activities, in these cases, the products are by their nature better than the activities. Since there are many sorts of action, and of expertise and knowledge, their ends turn out to be many too: thus health is the end of medicine, a ship of shipbuilding, victory of generalship, wealth of household management. But in every case where such activities fall under some single capacity, just as bridlemaking falls under horsemanship, along with the others that produce the equipment for horsemanship, and horsemanship along with every action that has to do with expertise in warfare falls under generalship—so in the same way others fall under a separate one; (1094a1-14)

If so, then one must try to grasp it at least in outline, that is, what it might be, and to which sort of expertise or productive capacity it belongs. It would seem to belong to the most sovereign, i.e. the most “architectonic”. Political expertise appears to be like this, for it is this expertise that sets out which of the expertises there needs to be in the cities, and what sort of expertise each group of people should learn, and up to what point; and we see the most prestigious of the productive capacities falling under it, for example generalship, household management, rhetoric; and since it makes use of the practical expertises that remain, and furthermore legislates about what one must do and what things one must abstain from doing, the end of this expertise will contain those of the rest; so that this end will be the human good. (1094a25-1094b7)

Aristotle states that every sort of expert knowledge, every inquiry, and every action and undertaking seek some good. In the context of craft, this means that every craft has an aim, a goal or end. The ‘some good’ is limited to each particular craft and this limited good defines the end of the craft. For instance, health is the ‘some good’ for the craft of medicine, a ship is the ‘some good’ for craft of shipbuilding, and a house is the ‘some good’ for the craft of building.

Aristotle next states that ‘the good’ is that at which all things aim. This sentence contains the universal statements ‘the good’ and ‘all things’. ‘Some good’ is limited, and is particular to each craft, ‘the good’ is a universal, as it applies to all things, and it appears that there is a relationship between ‘some good’ and ‘the good’.
Broadie argues that if a craft aims at ‘some good’, but also aims at ‘the good’, each craft would have two aims, both a limited one and a universal one, which would imply that ‘the good’ as universal would somehow be common to all ‘some goods’.\textsuperscript{11} The ‘some good’ of building is a house; the ‘some good’ for cithara playing is playing well. These two different crafts do not have the same limited good as end, so it would appear that ‘the good’ cannot be the same kind of end as the ‘some good’ is for a particular craft, otherwise all crafts would aim at the same end and that has been found incorrect.

‘Some good’ has to mean more than just some particular end, otherwise Aristotle could have just stated that every craft has a particular end, but through ‘some good’ he connected the end of the craft with ‘the good’. So the ‘some good’ must mean that the craft aims at something of value, or desirable or otherwise people would not pursue it in real life.

Existing crafts are directed toward ends of some value, since for a craft even to exist it has to have some value for society or a group of individuals over a prolonged period of time. Many crafts are of value, but not all are necessarily good. Everyone could agree on the value of the craft medicine, or the value to the craft of carpentry, but in general the crafts of slave trading, prostitution or thievery are not seen in relation to value. These crafts are of value at least to some part of society, but that does not make them good crafts for all of society. Aristotle would possibly respond by saying that one would have an incorrect understanding of the concept of value by classifying these kinds of activities as crafts, since ‘value’ and ‘the good’ are inextricable.

Given that Aristotle states that every activity aims at ‘some good’ – ‘every activity’ is understood as a universal, within which particular activities can be exemplified; such as carpentry, or sculpting, or cithara playing. But ‘every activity’ could also include murder,

prostitution, robbery or slavery. The robber and slave trader aim at a particular ‘some good’ for themselves, but their ‘some good’ is not ‘some good’ for their victims. Indeed it is difficult to argue that the slave trader’s ‘some good’ would partake in ‘the good’ as a universal. By employing this notion of the universal, Aristotle has left himself open to criticism in that he owes a further explanation of ‘the good’. He attempts this in his discussion of happiness, which is further discussed in chapter three.

In analogy, Aristotle states that certain crafts are related to others for their value (1094a10). He mentions that the particular end of the craft of bridlemaking, the bridle, is done for the sake of the particular end of the craft of horsemanship, which is good horse riding, and good horse riding would be difficult to do without a good bridle on the horse. Good horse riding, together with for instance sword making, are done for the sake of the end of the particular craft of generalship, which is victory. Bridlemaking is valuable in the context of generalship, as the former is done for the sake of the latter. It does not matter whether generalship is of value or not, the internal relationship between bridlemaking and generalship is still valuable. Aristotle argues that many crafts are done for the sake of other crafts, and that many particular ends of crafts can be collected under a few controlling, prestigious and more universal ends of crafts such as generalship, rhetoric and household management (1094b3).

The relationship between crafts does not appear as linear as could be implied from Aristotle’s statement. For instance, bridlemaking could be done for the sake of the craft of horsemanship, which in turn could be done for the sake of the craft of transport, and the craft of transport could be done for the sake of the craft of household management. This relationship between the particular craft of bridlemaking and the more universal craft of household management seems as valid as the previous relation between bridlemaking and generalship. It appears that there is no singular relationship between crafts on the various hierarchical levels.
Aristotle also mentions several ‘prestigious’ crafts that appear to be distinct (1094b3). If all the lower, particular crafts are pursued for the sake of a higher, ‘prestigious’, more universal crafts, there would have to be a final craft for which all others are pursued, otherwise all ‘prestigious’ crafts would be pursuing their ends for their own sake. This final craft would be the craft for the sake of which all other crafts would be done. The final craft, to which even the prestigious crafts are subordinate is politics.

For Aristotle the craft of politics is the as the most sovereign craft, or most ‘architectonic’ of all the crafts, and politics is the craft for the sake of which all other crafts are done (1094a27). For Aristotle, politics is ideal, practical, and all embracing. The end of politics is good government, education, laws, economy and arts are all parts of the array of crafts that enable the well-being of the citizens, and that serve the arch craft of politics.

Aristotle has now completed the hierarchy of crafts, and the ultimate craft has been named as politics. There are various ‘prestigious’ crafts that only exist for the sake of politics, and that all other crafts are hierarchically linked to them in a non-singular way. The ‘prestigious’ crafts are distinct and are close to politics in the hierarchy. These are the crafts mentioned in the ‘state of affairs’ classification.
CHAPTER 2 - CRAFT ANALOGIES AND PRACTICAL WISDOM

(*phronesis*)

This chapter will discuss Aristotle’s use of craft analogies in relation to character and intellectual excellence, focusing on the intellectual excellence of practical wisdom. Aristotle argues that craft, and human action both generally fall under the sphere of ‘things that can be otherwise’ (1140a1-2), which is to say fit into the world of change, contingency and particulars, and thus that these two realms are different kinds. Practical wisdom is identified by Aristotle as the human intellectual excellence in the realm of action.

When comparing craft to practical wisdom, Aristotle states:

> Practical wisdom will not be a technical expertise, because action and production belong to different kinds. It remains therefore for it to be a true disposition accompanied by rational prescription, relation to acting in the sphere of what is good and bad for human beings. For the end of production is something distinct from the productive process, whereas that of action will not be; here, doing well itself serves as end. (1140b4-8)

In this chapter the discussion is divided in conducted in two main parts, with the second part divided up into a further three parts. The first section introduces the concept of excellence as a field of inquiry. The second section focuses on the comparison of craft analogies and practical wisdom where three distinct aspects of practical wisdom are the subjects of further discussion. These aspects are deliberation, reasoned choice and perception. It is argued that craft as analogy with excellence and with practical wisdom in particular is instructional, in that it can explain in outline what the concepts entail, but that craft does not capture the full depth of human action.
Section 1: Pros Ton Kairos

Excellence being of two sorts, then, the one intellectual and the other of character, the intellectual sort mostly both comes into existence and increases as a result of teaching (which is why it requires experience and time), whereas excellence of character results from habituation. (1103a15-17)

Aristotle defines excellence in terms of both intellect and character. Excellences need to be acquired and developed and this process differs between formation of character and intellectual excellence. Aristotle argues that excellence is not an inherent part of the nature of human beings, stating that ‘excellences develop in us neither by nature, nor contrary to nature, but because we are naturally able to receive them’ (1103a24-25).

Human beings are not born with the excellences, but have a natural capability for them. Some part of the soul, which is innate, has the potential to receive excellence through a process that actually needs to be chosen by an individual. Excellence develops neither by nature nor contrary to it, so their development could happen in a good or bad way, as there is nothing in human nature that prevents bad development (1103b10).

So too both with builders and the rest: good building will result in good builders, bad building in bad ones. If it were not like this, there would be no need at all to teach them, and instead everyone would just become a good builder or a bad one. This, then, is how it is with excellence too; for it is through acting as we do in our dealings with human beings that some of us become just and others unjust; (1103b10-15)

Aristotle argues that the character excellences develop through a process of habituation. One becomes just or moderate by engaging in just or moderate activities. As excellence is developed through training, it is important that the actions in this learning process need to be of a particular quality, so excellence is built up in a proper way. This process of learning and habituation is in a large part analogous to the process of becoming a good builder or cithara player as discussed in chapter one, as the method of developing excellence of character has similarities with the method of becoming a skilled craftsman. Both need practice and
instruction for the relevant skills to build up to become ‘second nature’. It is argued that Aristotle uses the concept of habituation found in craft in a way that clearly identifies character excellence as not attained without consistent effort.

Aristotle further argues that excellence is effective at hitting upon the intermediate (1106b15). Aiming at the intermediate is important for human beings, as the good for human beings, happiness, appears to be the intermediate between excess and deficiency in any situation.

So for example it is possible on occasion to be affected by fear, boldness, appetite, anger, pity, and pleasure and distress in general both too much and too little, and neither is good; but to be affected when one should, at the things one should, in relation to the people one should, for the reasons one should, and in the way one should, is both intermediate and best, which is what belongs to excellence. (1106b19-23)

In this statement, Aristotle argues that excellence is capable of finding the intermediate in every aspect of a particular situation. Excellence deals with the emotional aspect of human individuals, and in the person of excellence the emotional side would have developed properly by habituation of doing just, moderate and courageous acts. Over time, the person of excellence would be capable of recognising characteristic features of any situation and feel the appropriate level of emotion for that situation.

Aristotle does not elaborate on how one actually finds the intermediate for any of these situational aspects. The only indication he gives is that the intermediate is determined by rational prescription and in the way a wise person would determine it, and this wise person is recognised as the person of practical wisdom (1107a1-2). Aristotle recognises the unhelpfulness of his answer as he states:

But while talk like this says what is true, it is not at all illuminating: for in all other spheres of concern, ones involving specialised knowledge, while it is true to say that one shouldn’t apply oneself, or slacken one’s effort, either too much or too little, but just to an intermediate degree and as the correct prescription lays down, if this were the only thing a person knew he would be no further on—
e.g. he would not know what sorts of remedies should be applied to the body, if someone just said ‘those that medical science dictates, and in the way the medical expert would do it’. (1138b26-33)

Within this analogy, an individual seeking medical advice for a particular problem receives the answer ‘as the medical science dictates, and in the way the medical expert would do it’. Broadie argues that by analogy, an individual seeking advice in regards to making the right decisions in particular cases receives the answer ‘as ethical science dictates, in the way a wise person would do it’. 12

In the medical example, there is no need for the individual to become a medical expert to fully benefit from the medical advice. But practical wisdom is a human excellence; no one can get full benefit merely by taking some advice from somebody, since without practical wisdom one is incomplete (1144a6-7). The wise person appears to be not only an adviser, but also examplifies of the sort of person that one needs to try to be.

Broadie states that Aristotle does not give a description of the rational prescription, but instead he begins to investigate various aspects that contribute to practical wisdom by comparing and contrasting practical wisdom to the practical skills of a craftsman and to theoretical thinking. 13

In the next section, three aspects integral to the concept of practical wisdom are investigated; deliberation, reasoned choice and perception. Various craft analogies are introduced to ascertain their instructional value for the understanding of these concepts. The comparison of practical wisdom and craft is more prominent in deliberation and reasoned choice than in perception, which Aristotle compared with the theoretical excellence of intelligence.

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12 Broadie, p.191
13 Broadie, p.192
Section 2: Three Aspects of Practical Wisdom

Aristotle identifies different aspects of the rational part of the soul, and states that one part of the rational soul reflects on things ‘that cannot be otherwise’, and this part is called the ‘scientific’ part. The other part of the rational soul deals with ‘things that can be otherwise’ which is called the ‘calculative’ part (1139a6-12).

The intellectual excellence that belongs to the ‘scientific’ part of the rational soul deals with things that are by necessity eternal, that is, not subject to either coming into being or passing out of being. An example of things that are by necessity eternal are the stars and planets and mathematics. Aristotle further argues that the excellence of this rational part of the soul deals with three distinct matters. They are systematic knowledge (episteme), which deals with scientific demonstration, intelligence (nous), which grasps the first principles and intellectual accomplishment (sophia), which combines the both systematic knowledge and intelligence (1139b16-18).

The excellences of the calculative aspect of the rational soul deal with things that can be otherwise, the world of change, and the things that directly matter to us as human beings (1139a16). Aristotle recognises two distinct excellences for this part of the rational soul. Craft (techne), which deals with the realm of production, and practical wisdom (phronesis), which deals with the realm of action (1139b15). The realm of production is concerned with things that come into being, that is with the theoretical and practical aspects of creating things that are contingent by nature. Its excellence is a productive disposition accompanied by a rational prescription (1140a2).

Broadie argues that the realm of action is concerned with all things relating to the active engagement of human individuals, or human practice, as opposed to the objects of intellectual
accomplishment, action deals with things that are particular, imprecise, contingent and non-abstract.\footnote{Rowe, p.47}

Aristotle argues that action is distinguished from production, since the end of the productive process is something distinct, whereas the end of action, doing well, is its own end (1140b5-8). Action’s excellence is a disposition, accompanied by a rational prescription, in the sphere of what is good and bad for human beings. A characteristic of the wise person is that she deliberates well about things that are good and advantageous to herself, without specific contexts, and this is the first aspect of practical wisdom that is discussed.

**Deliberation**

In this section the concept of deliberation in craft is compared with that of deliberation in practical wisdom and it is shown that although there are similarities, the complexity of deliberation in practical wisdom is greater than in craft.

Deliberation is reasoning in a practical way and two aspects of practical reasoning can be recognised. There is the process of deliberation by which a choice is formed and there is the reasoned choice itself (1139a23). We could possibly see deliberation as the process and reasoned choice as the product. Deliberation is also an important aspect of many crafts.

And in relation to those forms of knowledge that are precise and self-contained, there is no deliberation, as e.g. with writing (for we are not in two minds about how we write); but those things that come about through us, but not in the same way on every occasion—these are the things we deliberate about, as e.g. we do about things falling within the spheres of medicine and business, and in relation to navigational expertise more then to that of athletic training, to the degree that the former has been less precisely worked out, and again deliberation is involved similarly in the remaining cases, but more, too, in relation to productive than to other forms of knowledge, for we are more in two minds about the productive forms. (1112b1-8)
Certain crafts have little need for deliberation, whereas for other crafts deliberation is central. Nussbaum argues that the amount of deliberation seems to relate to the kind of rules and standards that govern the particular craft. In certain crafts, rules, principles and standards can be seen as guidelines or rules of thumb. Guidelines can be interpreted as summaries of particular decisions, and are useful for their efficiency in helping the craftsman to recognise certain situations. Guidelines are not binding, they are there to steer the craftsman in the direction of the end, and so these guidelines do not prescribe specific actions.

In the craft analogy, Aristotle mentions medicine, business and navigation as crafts in which deliberation plays a central role. In medicine, the physician has a good general knowledge of the workings of the human body, but still needs to deliberate about every new case, because the circumstances of the patient are different for every case. Similarly, for the craft of business, the businessman has to deliberate about where to invest the money, where to allocate more resources, where to find staff, what is the competition doing and where the market is moving. In the case of the navigator, he has to deliberate about wind directions and ocean currents.

The 'state of affairs' category introduced in chapter one serves to highlight the concept of deliberation in practical wisdom. All these crafts deal with particular situations of great complexity and variety. Many situations they face within their craft have elements that are new and need to be accommodated into existing patterns of knowledge. Each new case adds to the guidelines for the craft, and becomes part of the summary of previous decisions within the craft. Aristotle used these crafts on purpose in his discussion on deliberation in practical wisdom, as the complexity of particular situations faced by these crafts has is analogous to the complexity of the situation faced by the person of practical wisdom.

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15 Nussbaum, p.298
Nussbaum argues that in other crafts, rules can function as the authority against which particular decisions are measured and assessed. These rules are generally largely prescriptive and binding. This occurs where the amount of deliberation will not change the potential correctness of a choice in particular cases. There is little flexibility in relation to deliberation within crafts that are contained by these rules. For example, in the craft of grammar and spelling, a word is either spelled correctly or not, the correctness is not influenced by the amount of deliberation about the possible spelling of a word.

In his use of craft as analogy, Aristotle recognises that there are crafts that have binding rules against which decisions are measured. It seems as though Aristotle realised that examples of these crafts would be inappropriate to use as analogy in the discussion of deliberation in practical wisdom. He mentions that the craft of athletic training has more stringent rules than in that of navigation or business, and so it is a less appropriate example for deliberation.

In recognition of crafts that would not be instructional in the case of deliberation, Aristotle states ‘we are in two minds about the productive forms’ (1112b8). Aristotle here recognises that some productive crafts would be appropriate, and some would be inappropriate to be used as analogy for deliberation in practical wisdom. For instance, there is little need for deliberation in weaving, apart from deciding about the pattern or the colour of the threads that are going to be used, and so weaving would not be a good example to use where deliberation is important. Though Aristotle did not recognise the ‘state of affairs’ category as distinct, he clearly did recognise that certain crafts have a greater need for deliberation, such as medicine and navigation, and that these better serve as an analogy for practical wisdom.

The next aspect of deliberation discussed is the operation of deliberation in a means-end framework.

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Nussbaum, p.299
But we deliberate, not about ends, but about what forwards those ends. For a doctor does not deliberate about whether he'll make his patients healthy, nor a public speaker about whether he'll persuade his audience, nor a political expert about whether he'll bring about good government—and neither do any of the others deliberate about the end, but rather they take the end for granted and examine how and by what means it will come about. (1112b12-16)

In the means-end framework an argument can be formulated as a practical syllogism, which is never directly used by Aristotle, but the structure of the syllogism is implied in a passage about mistakes (1142a22). Noel argues that the practical syllogism is a set of premises leading to a conclusion.\(^\text{17}\) The first premise, or major premise, is a universal statement, as it talks about types or kinds of things. The second premise, or minor premise, and the conclusion are both particular statements, dealing with instances of the kinds or types mentioned in the universal first premise.

Within the means-end framework, the end of the argument is given as the major premise. In the craft analogy, the end of the craft that the doctor aims at is health, and for the politician the end of the craft is good government. The deliberation within this style of argument is about the means to bring about health or good government. The deliberation will be about procedures, or the necessary instruments to bring about the given end, and there also is a causal connection between the means and the end.

For Aristotle, there is an important connection between decision and deliberation elaborated in the following section (1111b27). Aristotle also argues that no one deliberates about eternal things, such as the universe (1112a22), but that we deliberate about things that depend on use and are doable (1112a32).

Wiggins argues that if one sees the analogy in relation with the realm of action, it is understood that the end of all human actions is given, that is happiness or the fulfilled life, which would be the major premise in the syllogism.\textsuperscript{18} The minor premise is the particular situation one finds oneself in, which includes a collection of possible alternatives available in the particular situation. Deliberation is the chain of reasoning that leads to the conclusion of the argument which is the final decision to act.

Wiggins continues that there is another way of interpreting the example, which focuses especially on the first line that deliberation is ‘about what forwards the end’. Seen as an analogy to the realm of action, in this interpretation there still is no deliberation about happiness or the fulfilled life being the final end, but there are questions about what happiness might be like.\textsuperscript{19} There is no clear defined image of happiness, but the individual querying about fulfilment only has a vague description of what fulfilment could be like. The real problem is not to see what means will be needed to bring this situation about, but what would really qualify as a comprehensive and practically realisable specification of that fulfilment.

Wiggins states that deliberation is still a search, but not a search for means only.\textsuperscript{20} It is a search for the best possible description of happiness in a given situation. Once that description has been decided upon, the argument can then be seen within the means-end framework and the deliberation towards the provisional end can begin. If difficulties turn up in the means-end deliberation, and no acceptable solution can be found, one could possibly rethink and find a better or more practicable specification of the end.


\textsuperscript{19} Wiggins, p.228

\textsuperscript{20} Wiggins, p.228
It is argued that Aristotle used the ‘state of affairs’ crafts, such as medicine, politics and rhetoric, on purpose in the analogy. Within these ‘state of affairs’ crafts the ends are clear, but what the end entails is not clear for every situation. For example, the end of the craft of rhetoric is convincing an audience. In any situation, a rhetorician would need a clear description of that particular end, otherwise it would be difficult for him to deliberate about finding the means for convincing the audience. Sometimes the audience could be favourable, at other times the crowd could be hostile and sometimes the audience shows little interest in what the rhetorician has to say. In each of these situations, the end of the craft for the rhetorician is convincing an audience, but the description of what that end entails differs in particular circumstances.

In this section, it has been argued that there is a similarity between the nature of deliberation in craft and in practical wisdom. The similarity is more appropriate for the ‘state of affairs’ crafts than for the crafts that have a product of performance as aim. In the ‘state of affairs’ crafts, there is need for flexible deliberation and in these crafts the end might be clear, but what the end is like is not always fully shaped.

The person of practical wisdom also needs flexible deliberation, but the complexity surrounding his deliberation is greater than the deliberation by the craftsman in any of the ‘state of affairs’ crafts, as their deliberation is qualified by their craft, whereas for the person of practical wisdom the deliberation is without qualification (1140a32).

**Reasoned Choice**

The second aspect of practical wisdom is reasoned choice. Aristotle includes reasoned choice, or decision, in the definition of character excellence.
Excellence, then, is a disposition issuing in decisions, depending on intermediacy of the kind relative to us, this being determined by rational prescription and in the way in which the wise person would determine it. (1106b36-1107a2)

Aristotle also describes decision as desire informed by deliberation (1139a23-24), and alternatively that for decision one needs to combine intelligence and thought on the one hand, and character excellence on the other hand (1139a34-35). In reasoned choice, the character excellence that relates to the human individuals’ emotional side of feelings, appetites and desires is linked with action through practical wisdom. Reasoned choice is the endpoint of deliberation and the starting point of action.

Kosman describes excellence as a disposition or potentiality that renders someone capable of a particular way of actual being. There are various kinds of dispositions in relation to human beings, and craft is disposition or human capability in relation to production. Aristotle states that technical expertise will be the same as productive disposition accompanied by true rational prescription (1140a10-11).

Craft, like excellence, issues in reasoned choice and is this way the dispositions are similar. However, the difference between craft and excellence is that in craft there is no link between the feelings of the craftsperson and the particular activities performed in the craft, whereas in excellence there is a link between the feelings of the human individual and the activity that is done. Aristotle compares the role of reasoned choice in craft and excellence in the following example:

Again, neither do the case of the skills and that of the excellences resemble each other: the things that come about through the agency of skills contain in themselves the mark of their being done well, so that it is enough if they turn out in a certain way, whereas the things that come about in accordance with the excellences count as done justly or moderately not merely because they themselves are of a certain kind, but also because of facts about the agent doing them—first, if he does them knowingly.

secondly if he decides to do them, and decides to do them for themselves, and thirdly if he does them from a firm and unchanging disposition. When it is a matter of having skills, these conditions are not relevant, except for knowledge itself; but when it comes to having the excellences, knowledge makes no difference, or a small one, whereas the force of the other conditions is not small but counts for everything, and it is these that result from the repeated performance of just and moderate actions. (1105a26-1105b5)

In the analogy, Aristotle describes three aspects that are essential for any moral action to be judged excellent. First, the agent has to do the action knowingly, second he has to decide to do the action and decide to do the action for itself and third he has to do the action from a firm and unchanging disposition. If not, it is not a reasoned choice for a rational agent. He further compares these aspects of the moral action to the craftsman activity and argues that the craftsman is only concerned with acting from knowledge and that the second and third aspects have no relevance for the eventual quality of the product or performance of the craft (1105b1), and it is this claim will be discussed below.

For instance if we examine this point using a craft analogy, the comparison in craft could be that a carpenter wants to make a cabinet. He knows how to do that, because he has the capability as a craftsman. If he produces the cabinet for no other reason than as an expression of his craftsmanship, it could perhaps be argued that the decision is internal to the craftsman, but not many cabinets are produced for this reason. Often the decision to produce a cabinet is made because a client orders one.

Aristotle states that reasoned choice is action accompanied by the right feelings (1139b5). Building the above analogy, if for whatever reason, the carpenter is angry or frightened when making the cabinet, and because of these feelings his skills are impeded. The produced cabinet turns out to be of low quality. In general, his craftsmanship is not going to be judged inferior on the basis of this cabinet, if the observer was made aware of all the circumstances surrounding the production. The observer would take the mitigating circumstances into
consideration and decide that the inferior cabinet is not a fair example of the carpenter’s craftsmanship. Broadie argues that in general, there is no need for a builder to be in a particular emotional state to perform the activities as a builder, no more than it is important for him to be physically healthy. It appears that feelings and emotions have little impact on the level of craftsmanship for an individual craftsman.

From this point of view, it could be argued that craft is morally neutral as no judgment is passed on the activities performed within the context of the craft. In theory then the craft is morally neutral, but by being human first the craftsman is not. The reasoned choices made within the context of the craft as a craftsman are subordinate to the reasoned choices made as a human being. It could be argued that making excellent choices in craft has two distinct meanings.

There is such a thing as excellence in technical expertise, not in wisdom; and with technical expertise it is more desirable if someone voluntarily gets something wrong, whereas with wisdom, as with the excellences, it is less so. (1140b22-24)

The first sentence could imply that the choices within the craft are made in such a way that the product or performance was of the best quality that could be attained in the circumstances. The product or performance turned out to be excellent. On the other hand, there can be no excellence in practical wisdom as it is an excellence.

Aristotle states that for a choice to count as reasoned choice, it has to be made for itself (1105a32). Dunne argues that by taking this qualifier into account, another interpretation of ‘there is such a thing in excellence’ could be that the choices craftsmen make within the exercise of their craft are morally excellent. Assuming that both craftsmen are making their choices voluntarily and not under duress, a carpenter making a mediocre cabinet for a poor

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22 Broadie, p.89
23 Dunne, p.264
client is morally superior to a cithara player is performing excellently at a rich slave trader’s orgy. It could be argued that one’s accomplishments in craft are subordinate to one’s wider concerns as a human being.

Aristotle states ‘for decision seems to be something highly germane to excellence, and to indicate the differences between people’s characters more than actions do’ (1111b5-7). While the production or performance can be assessed as good production or performance, one can always ask whether the choices to produce or perform were the right thing to do at that time, under those particular circumstances. Aristotle states that the doer acts knowingly (1105a31).

Dunne argues that on account of this knowledge, the doer would have realised the salient features in the situation, as these features define the action. It is then possible to judge that actions of the cithara player show excellence within the context of his craft, but that the carpenter displays moral excellence in his choices and as such is more ‘excellent’ than the cithara player.

For choices to count as reasoned choice, Aristotle argues that they have to be made from a firm and unchanging disposition (1105a33). For the moral agent, this disposition is the result of habituation and the disposition is an integral part of the person one is. For the craftsman, the disposition is the embeddedness of the skill training, but has not involved any training of feelings.

In the case of the craftsman, if a reasoned choice has been issued in the context of the craft, there is no compelling reason to act upon it instantaneously, even if what has been decided upon can be attained directly. If the action was delayed, this would not reflect upon his craftsmanship. For example, a carpenter can decide to fix the handles of a cabinet in a couple

24 Dunne, p.265
of days instead of doing it now, and this delay in acting upon a decision does not show him to be a bad carpenter.

Broadie argues that there is also no reason why a craftsman’s decision could not be changed or not acted upon if someone pleaded with the craftsman not to perform the action, nor is there a problem with giving up the craft if the possessor does that freely and voluntarily, if he decides that it is no longer worth pursuing.25

In the case of the moral agent, however one cannot decide to no longer be excellent, as their disposition could never issue this as a reasoned choice as such, since the disposition is itself integral to the structure of the individual. One would in this case have to decide to discard moral integrity, and it could be argued that this behaviour cannot be judged as reasonable.

The significant difference between reasoned choice in craft and practical wisdom is that the emotional aspect of human nature plays little or no role in the choices made by individuals in the context of their craft, whereas reasoned choices informed by practical wisdom cannot be seen separate from the emotional side. Choices made as a craftsman are subordinate to choices made as a human being. Aristotle recognised this significant difference, and realised that the craft analogies in relation to practical wisdom fall short in conveying the importance of the emotional aspect of in reasoned choice.

**Perception**

The third aspect of practical wisdom investigated is that of perception. Aristotle argues that practical wisdom concerns both universals and particulars.

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25 Broadie, p.90
And the person who is without qualification the good deliberator is the one whose calculations make him good at hitting upon what is best for a human being among practicable goods. Nor is wisdom only concerned with universals: to be wise, one must also be familiar with the particular, since wisdom has to do with action, and the sphere of action is constituted by particulars. (1141b12-17)

The person who is good at deliberating without qualification, the person of practical wisdom, is contrasted to the person who is good at deliberating in some specific field, for instance in medicine or politics. The person of practical wisdom is concerned with what is morally good. The morally good is the universal, and practical wisdom is concerned with that, but the person of practical wisdom should also be concerned with the particular, which is the morally good is in a particular situation.

As has been previously discussed, particular situations often are complex and it is not easy to ascertain the features relevant to the good in the situation. Aristotle uses a comparison with intelligence to indicate the way in which practical wisdom is capable of recognising situational features, when he states

So [practical] wisdom is antithetical to intelligence, for intelligence has as its objects the definitions for which there is no account, whereas [practical] wisdom has as its object what comes last, and this is not an object of systematic knowledge, but of perception—not perception of the sensibles special to each sense, but like that by which we grasp that the last element in mathematical analysis is the triangle; for things will come to a halt in that case too. (1142a25-30)

Dunne argues that intelligence is the intuitive undemonstrable grasp of first principles which are the limit to which all chains of deductive reasoning must be traced back, and these first principles are the starting points of systematic knowledge. Practical wisdom sees a particular action, the object that comes last, as an action of a particular kind, similar to seeing a figure as a triangle. Hughes argues that seeing something as a triangle is not simply perception, as there is a difference in the way one merely sees three lines on different angles and seeing the lines as

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26 Dunne, p.297
a mathematical figure. It is ‘seeing as’, it is seeing with classification. There is no need for proof or argument, one just notices what it is.

And everything that is done belongs to the particular, and to what comes last; for not only must the wise person be familiar with these latter things, but comprehension and sense are concerned with what is to be done, and this is last. And intelligence has as its objects what is last in both directions; for both the primary definitions and what is last in practical reasoning are to be grasped by intelligence, not with an account, the object of the sort of intelligence that operates in demonstrations being definitions that are unchanging and first, while the object of the sort the operates with practical dispositions is what is last and contingent, and belongs to the second premiss. For these are the starting points of that for the sake of which, since things that are universal consist of particulars.

(1143a32-b5)

In this comparison, Aristotle explains that intelligence has ‘as its objects what is last in both directions’. Aristotle possibly argues that not only are the principles of systematic knowledge perceived by intelligence, but also that ‘what is last in practical reasoning’. So where practical wisdom was first contrasted with intelligence (1142a25), in this statement practical wisdom and intelligence in combination are responsible for grasping what is relevant in a particular situation.

Hughes argues that although there is a strict division between the first principles of systematic knowledge which are unchanging and eternal, and ‘what is last in practical reasoning’ which is contingent, it could be argued that this statement would indicate that there are certain things that have to be taken as basic, beyond which no more fundamental argument can be found. Insight is necessary in systematic knowledge, for instance recognising something as a triangle, but one also needs insight in recognising the salient features of the situation to act appropriately.

Aristotle also argues that universals are derived from, or consist of, particulars (1143b4-5). This would imply that individuals build up a notion of the end to aim at, for instance

27 Hughes, p.100
28 Hughes, p.102
supportiveness or kindness, by grasping instances of supportiveness in particular actions. This would also imply that every time one acts supportively, the essence of that particular action is enhancing the individual’s general understanding and experience of supportiveness.

Aristotle recognised that insight or perception in particular situations would be difficult to extrapolate into comprehensive fixed rules, which could work as ultimate authority against which actions could be adjudicated independently.

Things in the sphere of action and things that bring advantage have nothing stable about them, anymore than things that bring health. But if what one says universally is like this, what one says about particulars is even more lacking in precision; for it does not fall either under any expertise or under any set of rules. (1104a3-8)

In this analogy, Aristotle recognises that things that bring health have nothing stable about them, but medicine is nonetheless regarded as a craft. It has rules and standards that the physician can and must use when dealing with ill patients. On the other hand, particulars in the sphere of action fall under no expertise or set of rules. Practical wisdom must decide in each situation what the correct course of action is, and cannot revert to any rules.

Nussbaum argues that the impossibility of extrapolation of any rules in regards to the particulars in action is down to various factors. First is the lack of fixity of the particular situation. The outside world often confronts rational agents with new situations, beyond what they have previously experienced. The person of practical wisdom must be flexible and imaginative to deal with these new situations. Aristotle describes them as those ‘whose calculations make them good at hitting what is best for a human being’ (1140a28).

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29 Nussbaum, p.302
It is recognised that crafts also confront many changes, as the objects with which they deal evolve, especially in the ‘state of affairs’ crafts, but that the level of change confronted by crafts is not of a similar magnitude as those that confront the rational agent.

Nussbaum argues that the second factor in relation to the impossibility of extrapolation of any rules is the indefiniteness of the particular.\(^3^0\) Excellent choice cannot be captured in universal rules. As discussed, each choice needs to fit around the complex requirements of the situation and Aristotle compares this with a flexible ruler in building.

For the rule for what is indefinite is itself indefinite, like the leaden rule used in building Lesbian-style: the rule adapts itself to the configuration of the stone, instead of staying in the same shape, and the decree adapts itself to actual events. (1137b29-32)

The ruler varies its shape depending on the underlying material, analogous to the rational choice that shapes itself around a complex situation, the salient features of which have been recognised by the perception of the person of practical wisdom and have been rationally deliberated upon to reach the decision.

In conclusion to this section and this chapter, it has been shown that Aristotle fully understood the limitations of the craft analogies, both in relation to the character excellences, but especially in relation to practical wisdom. He has indicated that although there are similarities between the realm of production, craft and that of action, in the final analysis they are intrinsically different. The deliberation towards an end that is both clear in universal terms and ambiguous in particular terms, the inclusion of the emotional aspect of the human being in forming reasoned choices and the possibility of recognising salient features in new complex situations differentiate these aspects of the man of practical wisdom with the way these aspects are applied by the craftsman in the context of his craft.

\(^{30}\) Nussbaum, p.303
CHAPTER 3 – CRAFT ANALOGIES AND HAPPINESS (eudaimonia)

Aristotle links the functional aspects of a human life (ergon) with the final end to which all things aim (eudaimonia). This chapter will reconstruct Aristotle’s justification for why he thinks happiness serves as the ultimate end furthering the analysis of his use of craft analogies as a pedagogical tool.

When Aristotle states that ‘the topmost of all achievable goods’ for humans is happiness (1095a16), he seems to have reached this conclusion after comparing and contrasting both learned and ordinary people. While he understands happiness as the ultimate goal for human beings he knows that not all humans reach this level of awareness. He recognises three different kinds of goal-oriented life; a life lived for pleasure, a life of politics, and a life of reflection.

The first kind of life, a life directed at pleasure and consumption, is for Aristotle a life not worth living, even though it is a common goal for many people, including those in ‘high places.’ Aristotle dismisses this choice and describes it as a ‘life that belongs to grazing cattle’ (1095b20-21). He is less dismissive of a second kind of goal oriented life, a life of politics, because the goal of politics can be honourable. However, because honour cannot be the ultimate good, a life of politics also falls short of a life that is well live (1095b24). Aristotle’s preferred kind of life is ‘life of reflection’ (1096a4). A life or reflection enables a rational agent to understand himself or herself within the wider context of a flourishing human life.

Aristotle attempts to find an answer for what happiness is through an inquiry into the function of human beings.

But perhaps it appears somewhat uncontroversial to say that happiness is the chief good, and a more distinct statement of what it is is still required. Well, perhaps this would come about if one
established the function of human beings. For just as for a flute player, or a sculptor, or any expert, and generally for all those who have some characteristic function or activity, the good—their doing well—seems to reside in their function, so too it would seem to be for the human being, if indeed there is some function that belongs to him. So does a carpenter or a shoemaker have certain functions and activities, while a human being has none, and is by nature a do-nothing? (1097b25-30)

Aristotle connects the function of a thing with the good at which it characteristically aims. A shoemaker’s function is to make good shoes and a flute player’s function is to produce good music. Crafts have functions relative to their end; good functioning for any craftsman must remain within the boundaries of what that their specific activity is.

By analogy with the shoemaker, Aristotle argues that human beings have a function and by analogy with the flute player he argues that the function of a human being is functioning well. And this functioning well is the ultimate good for humans. Aristotle continues the argument in search for the specific function of human beings:

What, then, should we suppose this [human function] to be? For being alive is obviously shared by plants too, and we are looking for what is peculiar to human beings. In that case we must divide off the kind of life that consists in taking in nutriment and growing. Next to consider would be some sort of life or perception, but this too is evidently shared, by horses, oxen, and every other animal. There remains a practical sort of life of what possesses reason. (1097b33-1098a4)

Like plants, human beings have growth, nutrition and reproduction in common, so these cannot be characteristic functions exclusive to human beings (1098a1-2). With animals there is the perception, sense and movement in common, so neither are they characteristic functions exclusive to human beings. Aristotle argues that reason seems to be that what makes human beings special, which separates them from plants and animals (1098a2-3). Human beings have growth and perceptive aspects, but they can also can think, plan and choose.

Various issues arise from Aristotle’s conclusion that rationality is the function that is specific to human beings. He could be wrong about this however because some species, the great apes
for instance, do seem to be capable of rational deliberation. Chimpanzees hunt in groups, they use tools, and they care for offspring over a long period of time.

Broadie argues that another possible objection to Aristotle’s human rationality argument is that one can imagine the discovery of another rational species. Such a discovery would expand the circle of rational species. What is important is that in Aristotle’s sense, the fundamental good is a good for human beings as beings who pursue and seek it rationally, and so the fundamental good has to be rational, otherwise rational inquiry would not bring results.

Broadie also thinks that the prominence of reason in Aristotle’s function argument diminishes other aspects of the human being that cannot be described in a strict rational way. Creativity, response to beauty, humour and compassion are such aspects that appear uniquely human, but are not limited to rational inquiry.

After establishing that rational activity is the defining characteristic of human beings, Aristotle focuses on the relationship between function and excellence.

1098a8-13

Aristotle uses the craft of cithara playing within this analogy to introduce the concept of excellence. For instance, a citharist can play well, or play partially in and out of tune or play mostly out of tune. The difference between playing the cithara and playing the cithara well is excellence. By analogy, the difference between the functioning of a human being and the good functioning of a human being is excellence.

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31 Broadie, p.35
32 Broadie, p.36
As stated previously, a reflective or rational agent has to know what the function of a thing is, otherwise he cannot identify the qualities in which excellence can be reviewed. A rational agent needs to know what the function of the citharist is, in order to judge whether the citharist plays well. Clearly, in this context the function of citharist does not consist in holding the cithara and plucking the strings randomly. One needs to know the purpose or end of a particular craft to know its function. Excellence is not a static quality, as excellence is attached to the function and relative to the end of a craft.

Aristotle concludes his investigation into the human good, when he states the human good turns out to be ‘activity of soul in accordance with excellence (and if there are more excellences than one, in accordance with the best and most complete). But furthermore it will be this in a complete life’ (1098a16-19).

The good for humans, happiness, is a rational practical excellent activity, and this activity happens over a complete life. From the previous discussion, it seems that the intellectual excellence of practical wisdom was the most complete of the excellences, as it combines rationality and action. It appears then that the definition of the human good is activity according to practical wisdom.

Practical wisdom is searching for the human good or happiness in every instance. As happiness can only be judged over a whole life, this entails as the collection of the particular instances of practical wisdom into a life. It is these instances that make up an individual’s life, and give it meaning while at the same time this life provides context for future deliberation and choices within practical wisdom.

Happiness is achieved when the human individual functions properly as a human being. The difference between functioning and functioning well lies in the possession of practical wisdom;
the possession of practical wisdom implies the possession of all the other excellences (1145a1-2). The fulfilment of the life of activity is happiness, which is practical wisdom in action and so happiness is not a separate product or effect of excellence. Practical wisdom does therefore not produce happiness as an end, but happiness is practical wisdom in action.
CONCLUSION

In conclusion, through this investigation of Aristotle’s use of craft analogy, it is surmised that these analogies function as a reasonably good pedagogical tool within the acknowledged limitations.

By investigating Aristotle’s typology of crafts based on the ends on which they aim (productive, performative and ‘state of affairs’

), we can see that craft analogies are useful in showing that ethics is a practical activity, in that it is learned through practice in the same way as crafts. The craft analogy also provides a link between the goal oriented nature of craft and the goal oriented nature of ethics.

This analogy holds well for character excellence which is the most readily defined aspect of ethics; holds moderately for practical wisdom, which is less easily defined; and loses its strength in relation to happiness due to the abstract nature of this concept.

Thus for the purposes for which Aristotle attempts to apply these analogies, they hold given that he recognises the inherent imprecision of his investigation. From this point of view Aristotle’s craft analogies bring about the most clarity possible given the nature of the subject.

Aristotle indicates that happiness is equated with the good life, however I find that his discussion of deliberation is a more useful and down to earth guide for the good life than the vague and distant goal of happiness.

33 Though this end is not distinguished explicitly in Aristotle's text, it is implied.
**APPENDIX**

Table 1 – Examples of Crafts and Craftsmen

<table>
<thead>
<tr>
<th>CRAFT</th>
<th>CRAFTSMAN</th>
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<tbody>
<tr>
<td>Technical expertise</td>
<td>Doctor</td>
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<tr>
<td>Political expertise</td>
<td>Shoemaker</td>
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<tr>
<td>Medicine</td>
<td>Musician</td>
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<td>Building</td>
<td>Builder</td>
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<td>Craft</td>
<td>Politician</td>
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<td>Generalship</td>
<td>Craftsman</td>
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<td>Athletic Training</td>
<td>Carpenter</td>
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<tr>
<td>Law</td>
<td>Farmer</td>
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<tr>
<td>Music</td>
<td>General</td>
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<td>Household Management</td>
<td>Mathematician</td>
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<td>Horsemanship</td>
<td>Sculptor</td>
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<td>Geometry</td>
<td>Technical expert</td>
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<td>Navigation</td>
<td>Actor</td>
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<td>Bridlemaking</td>
<td>Athletic trainer</td>
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<td>Geometer</td>
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<td>Lawyer</td>
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<td>Rhetorician</td>
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<td>Writing</td>
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**TOTAL** 128 **TOTAL** 105
BIBLIOGRAPHY

Translations


Books and Journal Articles


