

Émilie Du Châtelet on Illusions*

ABSTRACT: *In her Discourse on Happiness, Émilie du Châtelet argues susceptibility to illusion is one of the five ‘great machines of happiness,’ and that ‘we owe most of our pleasures to illusions’ (2009: 349). However, many who read the Discourse find this aspect of her view puzzling and in tension with her claims that we must always seek truth and obey reason. To understand better her claims in the Discourse on Happiness, this article explores Du Châtelet’s discussions of illusions in her Foundations of Physics, On Liberty, and the Dissertation on the Nature and Propagation of Fire. I distinguish four types of illusions that Du Châtelet posits and clarify the ways in which these relate to her views on happiness and love in the Discourse and argue that she avoids deceptive or perpetual illusions of happiness through the use of the principle of sufficient reason.*

KEYWORDS: Émilie du Châtelet, illusion, happiness, principle of sufficient reason, imagination

Introduction

In her *Discourse on Happiness*, Émilie Du Châtelet argues that being susceptible to illusion is one of the five ‘great machines of happiness’, and that ‘we owe most of our pleasures to illusions’ (2009: 349). However, many who read the *Discourse* find this aspect of her view puzzling and in tension with her claims that we must always seek truth and obey reason. As Judith Zinsser writes of Du Châtelet’s views in her introduction to the English translation of the *Discourse*, ‘Despite her belief in reason, she condones “illusion” as a means to happiness, even in love, the passion she defines as the ultimate source of happiness’ (Du Châtelet 2009: 346). Others, while noting that Du Châtelet does not think that illusion is an error, have suggested that Du Châtelet was open to completely illusory pleasures as a means to happiness (Whitehead 2006: 270–71; Bok 2010: 162–64). While Du Châtelet believes we have an obligation to seek truth, she does not take truth to be an intrinsic good. Rather, truth is necessary for success in our actions. Even still, how

* This article is the seventh in a special series of commissioned articles on women in the history of philosophy. The sixth article ‘Anne Conway as a Priority Monist: A Reply to Gordon-Roth’, by Emily Thomas, appeared in Volume 6, Issue 3, pp. 275–284.

I am appreciative of the anonymous reviewers for this journal for the insightful comments and very helpful suggestions for improving this article. Earlier versions were presented as papers at ‘Émilie du Châtelet’s Foundations of Physics: A Conference Celebrating the Complete English Translation’, at the University of Notre Dame, April 26–28, 2018, and ‘Tahoe Early Modern Workshop and Conference’, May 25–May 30, 2018. I thank the participants of both conferences for their helpful discussions. Finally, I am grateful to Tad Schmaltz for his encouragement and support of this work.

her stance on illusions is internally consistent or compatible with her demand that we be responsive to truth and evidence is unclear.

To provide a better understanding of her claims in the *Discourse on Happiness*, I explore Du Châtelet's discussions of illusions in her *Foundations of Physics, On Liberty*, and the *Dissertation on the Nature and Propagation of Fire*. I distinguish four types of illusions that Du Châtelet posits and clarify the ways in which these relate to her views on happiness and love in the *Discourse*.

I begin by illustrating the tensions in Du Châtelet's account of illusions of happiness. Next, I provide a précis of her views on the principle of contradiction, the principle of sufficient reason, and her views on error in relation to these principles. After, I discuss the ways in which illusions of inner sense, sense illusions, and illusions of imagination may lead to error. I then turn back to illusions of happiness and show why she believes they are not errors. Finally, I argue that her claim that illusions are necessary for happiness does not amount to a proscription for self-deception or completely illusory pleasures due to her commitment to the principle of sufficient reason.

1. Tensions in the Account of Illusions in Happiness

In the *Discourse on Happiness*, Du Châtelet claims to provide her reader with 'what age and the circumstances of their life would provide too slowly', and to save them 'time which they should devote to securing the pleasures that they can enjoy' (2009: 349). She is providing advice on how to be happy, which she believes most people only understand late in life. While most of her advice—to be free of prejudice, to be virtuous and healthy—might seem fairly intuitive, Du Châtelet's suggestion that susceptibility to illusion is one of the necessary conditions for happiness is not. She writes,

[i]n order to be happy, one must have freed oneself of prejudice, one must be virtuous, healthy, have tastes and passions, and be susceptible to illusions; for we owe most of our pleasures to illusions, and unhappy is the one who has lost them. Far then, from seeking to make them disappear by the torch of reason, let us try to thicken the varnish that illusion lays on the majority of objects. It is even more necessary to them than are care and finery to our body. (2009: 349)

Her advice is that, since most of our pleasures involve illusions, we should not use reason to dispel illusions that bring us happiness. Du Châtelet thinks that happiness consists in pleasure gained by having passions, which are movements of the soul that always have an affective part (an associated emotion) and an appetitive part (that is something like desire or motivation), and tastes, which are less intense and akin to preferences. So, if we are fond of, for instance, watching *Game of Thrones*, we will receive pleasure from satisfying this passion (or taste) while watching the show. This pleasure is increased, according to Du Châtelet, if while we are watching, we allow ourselves the illusion of believing that the stories depicted are real and ongoing. Giving ourselves over to these experiences as

completely as possible allows for maximal enjoyment, which ‘is the polish’ that our illusions afford us (Du Châtelet 1796: 15, my translation). However, one might think that in advocating the maintenance of illusions, she is condoning a mechanism that leads us into error and self-deception. After all, if one’s happiness is increased by giving oneself over to illusion in certain situations, why not give oneself over completely to illusions? Would doing so result in an error on our part? Du Châtelet does not think illusions of happiness are errors. She writes,

I say that to be happy one must be susceptible to illusion, and this scarcely needs to be proved; but, you will object, you have said that error is always harmful: is illusion not an error? No: although it is true, that illusion does not make us see objects entirely as they must be in order for them to give us agreeable feelings, it only adjusts them to our nature. Such are optical illusions: now optics does not deceive us, although it does not allow us to see objects as they are, because it makes us see them in the manner necessary for them to be useful to us. (2009: 354)

Here, Du Châtelet argues that the illusions we allow ourselves in order to be happy are like optical illusions. Du Châtelet claimed she knew Newton’s *Opticks* ‘almost by heart’, and optical illusions are discussed in several of her works (Zinsser 2006: 162). In this passage, Du Châtelet maintains that optical illusions are not errors; rather, they merely allow us to experience things in a way that makes them useful for us as human beings. The limitations and misrepresentations of sight, for instance, allow us not to be overwhelmed by large objects in our visual array. Here, Du Châtelet takes a line on illusion very much like the one that Descartes takes in the *Meditations on First Philosophy*. In replying to the possible objection that God might be a deceiver because our senses do not give us the true nature of things, Descartes notes that our senses were created in the best way for our survival (that is, for our benefit). Even though the senses seem to deceive us occasionally, as when the man suffering from dropsy feels an overwhelming thirst, which if satisfied might kill him, the senses usually are an extremely efficient means for directing us to what is useful and what is harmful. Descartes writes,

any given movement occurring in the part of the brain that immediately affects the mind produces just one corresponding sensation; and hence the best system that could be devised is that it should produce the one sensation which, of all possible sensations, is most especially and most frequently conducive to the preservation of the healthy man. (1984: AT 87/CSM 60)

The system by which sensations of pleasure and pain alert us to what is beneficial and what is harmful for our bodies does not always represent things as they truly are. Descartes goes on to argue, ‘there is nothing else which would have been so conducive to the continued well-being of the body’ (1984: AT 88/CSM 61). Du Châtelet agrees that our senses are set up in such a way that they sometimes

seemingly mislead us, but generally they serve the purpose of assuring our well-being. I return to this issue below in [section 2](#).

Yet Du Châtelet sometimes discusses optical and other sensory illusions as if they were the source of some error. As Judith Zinsser notes, although Du Châtelet was ‘a strong believer in the value of “experience”, of observations by the senses tempered by reasoned reflection, she was also quick to point out that the senses can mislead and are an imperfect guide to discovery of “truth,” of what she considered certain knowledge’ (2011: 140). As Zinsser also points out, Du Châtelet considers a case where our sense of touch might mislead us. Du Châtelet considers that sometimes two objects at the same temperature—wool and marble—will not make the same impression on a human who touches them. The marble will feel cooler than the wool, and thus we will judge it to be at a cooler temperature when it is not (2009: 95). In judging that the wool really is warmer than the marble we mistake our sensations for facts about the object itself. Zinsser also notes that Du Châtelet recognizes that our perception of objects is relative to our sense availability and thus may not give us information about the nature of the object itself. Zinsser writes,

In the case of defining the nature of fire, [Du Châtelet] explains, ‘light & heat are the objects of our senses touch & sight . . . sensations . . . which seem to depend on our existence & the manner in which we exist; for a blind man will define Fire as that which heats, & a man deprived of universal touch, that which lights’. She continues, noting that ‘one deprived of these two senses, would not have any idea of [Fire]. (2011: 140)

Likewise, in the *Foundations of Physics* Du Châtelet claims that Descartes’s principle of clear and distinct ideas went too far in allowing ‘a lively, internal sense of clarity and evidence to serve as the basis of our reasonings’ (2009: 125). She claims that this inner sense can lead to error and falsity since our perceptions of objects and their real natures might differ.

Finally, it is not clear that the illusions she claims are necessary for happiness are like sense illusions at all. For we cannot help but see the sun as we do. But believing that the events depicted in a play or opera are real might take some act of will on our part. In what follows, I explore this issue in greater detail below, but first I examine Du Châtelet’s account of methodology and avoidance of error.

1.1 The Two Great Principles and the Avoidance of Error

The *Foundations of Physics* contains discussions of methodology, which are supposed to help us avoid making errors in our judgments about the world. While it is beyond the scope of this article to canvass the whole of this interesting aspect of her philosophy (see Detlefsen 2014 and 2019; Hagengruber 2011; Hutton 2004 and 2011; Melamed and Lin 2010; Sleigh 1983), it is necessary to point out the extent to which Du Châtelet thinks that we have a duty to seek the truth and avoid error in all areas of inquiry. This methodological stance applies equally to her views in physics, metaphysics, and morals. While Du Châtelet does not have

an explicit account of error, she does mention ways to avoid it. In what follows, I briefly relate Du Châtelet's use of the two great principles: the principle of contradiction and the principle of sufficient reason.

Du Châtelet held that '[a]ll aspects of our knowledge are born from each other and are founded on certain principles whose truth is known without even reflecting on it, because they are self-evident' (2009: 124). She notes that the most certain of our knowledge is that which is derived from these principles by a small number of conclusions. The examples that she gives of these most certain truths are from geometry. She argues that we have 'certain' knowledge via the 'principle of contradiction', which can be understood as 'for any proposition P, if P implies a contradiction, then P is false' (Detlefsen 2014). Karen Detlefsen notes that this principle has two functions for Du Châtelet. The first is in dividing claims that are impossible from those that are possible. If something is contradictory, it is impossible and false. If not, then it is possible. The second function is dividing necessary truths from contingent truths. Du Châtelet thinks there are two ways we can fall into error when we ignore the principle of contradiction. First, errors arise from failing to prove that something is contradictory and so impossible, and second, errors arise from failing to show that something is not contradictory and so possible. Du Châtelet writes, 'One should be just as cautious when maintaining that a thing is possible; for one must be in a position to show that the idea is free of contradiction. Without this condition our ideas are only more or less probable opinions, in which there is no certainty' (2009: 128).

While following the principle of contradiction might help us in understanding what is impossible and possible, when it comes to what is actual or real, we must turn to the principle of sufficient reason. Du Châtelet devotes the first chapter of the *Foundations of Physics* to these principles, and she acknowledges her debt to Leibniz, who she claims 'took this principle [of sufficient reason], developed it, and was the first to state it clearly, and who introduced it into the sciences' (2009: 130). The utility of the principle of sufficient reason can be made clear by use of an example. For instance, we may not be certain that a metaphysical claim, such as *there are no unextended material simples in nature*, is true of our world either by intuition or by experiment, but we can know that if such a claim violates the principle of sufficient reason, there are grounds for rejecting it, according to Du Châtelet. This is so because the principle of sufficient reason demands that for any thing that exists, there must be a reason why it exists as it does and not otherwise.

Du Châtelet claims that the principle of sufficient reason is the foundation of moral philosophy as well as of physic and metaphysics: 'All men naturally follow it; for no one decides to do one thing rather than another without a sufficient reason that shows that this thing is preferable to the other' (2009: 128). For instance, she argues that while different men may follow different customs, when we decide which custom has the most 'reason' behind it, we then say that this custom is good and right. Thus, the principle of sufficient reason provides a guide to action that must be used in order to achieve happiness. In the *Discourse on Happiness*, Du Châtelet holds that in order to maximize our happiness, we must use our reason to determine not only which passions are most suited to our individual talents and circumstances but also which will serve us best in the long

term, and what the appropriate means for obtaining them are. The use of reason to determine which passions to pursue is the way that we can ‘make our passions serve our happiness’ (2009: 363, see also 350, 357, and 365). For Du Châtelet, maximizing one’s pleasures requires a thorough investigation of one’s circumstances, talents, and future prospects. This investigation will produce the reason for pursuing certain passions over others. Errors arise when we pursue passions that lack sufficient reasons (2009: 131). In all our pursuits, ‘it is absolutely necessary, in order to preserve oneself from error, to verify one’s ideas, to demonstrate their reality’ (2009: 127). In doing so, we will avoid committing ourselves to things that are ‘false, or chimerical’ (2009: 127).

Du Châtelet argues that we must make use of first principles as a means to seeking truth and avoiding error in all areas of human endeavor. Her continual emphasis on the pursuit of truth and the cultivation of reason in her masterwork, *Foundations of Physics*, is seen in her other works as well. So, again, we might wonder why it is that susceptibility to illusion, which seems so likely to lead one into error and falsity, is one of the most important means to happiness, according to Du Châtelet.

2. Inner Sense of Liberty and (Exterior) Sense Illusions

In what follows, I provide a more in-depth discussion of Du Châtelet’s use of illusions in her other texts before returning to the *Discourse on Happiness* in order to assess her claims about illusions of happiness in light of her views on truth and error. I begin with her comparison of our inner sense of liberty as a possible illusion and exterior sense illusions.

In her essay ‘On Liberty’, Du Châtelet argues that we can know that we are free because we have an ‘inner sense’ of our own liberty. In her discussion, she considers the objection that such an inner sense might be deceptive like our exterior senses, which are prone to illusion. Her reply to the objection will help us see how Du Châtelet conceives of sensory illusions and why she does not see them as errors.

Du Châtelet notes that the ‘enemies of liberty’ object to the argument that our inner sense of liberty shows that we are in fact free. She states the objection as follows:

They say, when we grant that you have an interior sense, that you are free, this will still prove nothing. For our sense deceives us in regards to our liberty, in the same way that our eyes deceive us about the size of the sun, once they make us judge that the disk of this star is about two feet wide, regardless of the fact that its diameter is really like one hundred to one, compared to that of the Earth. (1989: 488)

Here, the objector makes an analogy between our inner sense of our power to act as we will and our exterior sense of sight. The claim is that since our exterior senses are deceptive, we have no reason to trust the veracity of our inner sense. That is, our inner sense of liberty might be illusory. Du Châtelet responds by claiming that the two cases are not analogous. She writes,

[t]he two cases that you compare are very different. I can, and must, only see objects in direct ratio of their size, and in inverse ratio of the square of their distance. Such are the mathematical laws of optics, and such is the nature of our organs, that if my vision could perceive the true greatness of the sun, I could not see any object on Earth; and this, far from being useful, would be harmful to me. It is the same with the senses of hearing and smell. I do not have, and could never have, these senses more or less strong (all things anyways equal) than as the sonorous or odoriferous are more or less close to me. Thus God did not deceive me at all, in making me see what is distant from me at a size that is proportionate to its distance. But if I thought that I was free, and I was not at all, it would be necessary that God had created me purposely to deceive me; for our actions seem free to us, precisely in the same manner that they would seem if we were truly free. (1989: 488–89)

Here, in addition to denying the illusory nature of our inner sense of liberty, Du Châtelet emphasizes some of the features of nondeceptive sense illusions. First, as I note above, sense illusions are the result of a combination of the laws of nature and the structure of the human perceptual system. Second, these illusions are necessary for our well-being. Finally, these illusions are correctable in that we can know that, and how, they misrepresent through reason and experiment. Because sense illusions have these characteristics, Du Châtelet believes the senses are not deceptive. The main difference between these sensory illusions and the case of our inner sense of liberty is that there is no way to correct for our inner sense of liberty if it is false. Thus, Du Châtelet says that if we are not really free, this would be due to a ‘*perpetual illusion* [“*illusion perpétuelle*”] that God would cause in us, and this way of acting in the supreme Being is unworthy of his nature’ (1989: 489, emphasis added). Of course, a false sense of liberty might still be due to our constitution and might be useful for us in the sense of making us feel responsibility for our actions, a sense of duty, guilt, and the like, but the belief that we were free would still be an error. So, this illusion of inner sense, were it real, would be of a different kind than optical and other illusions of exterior sense.

The three features of sense illusions listed above are necessary for any illusion to count as nondeceptive for Du Châtelet. It is easy to see that Du Châtelet does not confine harmless sense illusion to optical illusions. As I note above, in her *Dissertation on the Nature and Propagation of Fire*, she discusses an illusion of touch. In the passage quoted below, she clearly states that this illusion is due to our nature:

There are three kinds of cold. The first is that which depends on the arrangement of our organs, for our senses often make us judge a body to be colder than another, though they are both the same temperature. Through this *illusion* marble appears colder to us than wool, and people believe caves to be hotter in winter than in summer, etc. (2009: 95)

Du Châtelet notes that our perception of cold in these cases is an illusion. However, she does not claim that the illusion is deceptive. Rather, this is an example of a sense illusion that is easily correctable by the aid of scientific experiment. It may be difficult for us to understand how these illusions are conducive to our well-being. But her example might be understood as indicating that the sense illusion of warmth in the wool, which would lead to a preference for sleeping on it in the winter, could help preserve body heat.

While Du Châtelet notes that our senses do produce illusions, it is important for her to maintain that these illusions are not errors. After all, we rely on our senses for verifying claims about reality. To claim that our senses cannot be trusted at all because of these sensory illusions is a sure route to skepticism (as we might think that Descartes demonstrates in the First Meditation). Since we can understand the limitations of our exterior senses and be on guard for situations in which they may mislead us, we can correct for their vulnerabilities.

3. Illusions of the Imagination

The external senses are not the only faculties used in the pursuit of truth and action. Next, we turn to the use of imagination its associated illusions. In this section, I examine her views concerning the role of the imagination in metaphysics and physics and how we can avoid error in these endeavors.

In the *Foundations of Physics*, Du Châtelet discusses the role of imagination in pursuing truths about the nature of reality. She argues that the role of imagination is limited with respect to methodology in physics and metaphysics because many things cannot be represented pictorially. Thus, we must exercise extreme caution in order to avoid illusions of the imagination. This stance seems to put Du Châtelet in line with a tradition that is critical of the use of imagination in matters of truth and fact. While it is beyond the scope of this article to delve into the specifics of the long and interesting history of the deceptive nature of the imagination, a short overview of those authors with whom Du Châtelet was likely familiar is instructive. For instance, Pascal writes in *Pensees* that the imagination is ‘that deceptive faculty, which seems to have been expressly given us to lead us into necessary error’ and that

it is that deceitful part in man, that mistress of error and falsity, the more deceptive that she is not always so; for she would be an infallible rule of truth, if she were an infallible rule of falsehood. But being most generally false, she gives no sign of her nature, impressing the same character on the true and the false. (2006: 24–25)

Pascal argues that imagination can lead us to truth, but because it more often leads to error and falsity, we can never trust it. Moreover, imagination presents things as true to us in the same manner whether the thing imagined is true or not. Du Châtelet seems to have similar worries about our ability to determine cases when the imagination is leading us into error. However, unlike, Pascal, she seems to think that there is a remedy for error. In a similar vein, Montaigne, whom Du Châtelet

mentions in her *Discourse on Happiness*, argues that imagination is determined by custom and education, and that reason is powerless against it (1987: 109–20). Malebranche held that the imagination ‘consists only in the soul’s power of forming images of objects producing changes in the fibers of that part of the brain which can be called the principle part, because it corresponds to all the parts of our body, and is the place where the soul immediately resides’ (1997: 88). Malebranche goes on to provide detailed explanations of how the imagination is involved in both physical and mental errors. Leibniz also warns against ‘strange imagination’, ‘conceits of imagination’, and ‘specters of imagination’ in his correspondence with Clarke (2000: 42–43, 45, 48). Leibniz’s use of the term *imagination* in this correspondence is often in the context of critical remarks about our ability to understand the fundamental nature of the world through mental representations. Finally, Hume argues that the imagination is dangerous for reason and that philosophical mistakes often proceed ‘merely from an illusion of the imagination; and the question is, how far we ought to yield to these illusions’ (2007: 1.4.7.6; SBN 267). Most of these philosophers held that imagination usually leads to error and falsity, and only a two of those mentioned above thought that reason was capable of guiding us away from these errors—Leibniz and Du Châtelet.

Du Châtelet’s attacks on the misuse of imagination in her *Foundations* focus on claims about extension as the essence of bodies and the ideas of absolute space and time. With respect to the essence of body, Du Châtelet’s complaint seems to be that the criterion for having a clear and distinct idea of the nature of body, which is based on a certain inner sensation of clarity and distinctness, cannot determine the dispute. She writes of Descartes,

[h]e believed that in extension, he had a clear and distinct idea of a body, without troubling to prove the possibility of this idea . . . So, one must substitute demonstrations for the *illusions of our imagination* [‘illusions de notre imagination’], and not admit anything as truth, except what results incontestably from first principles that no one can call into question, and reject as false all that is contrary to these principles, or to the truths that one has established with them, whatever the imagination might say. (2009: 125–26, emphasis added)

She argues that in this case, Descartes’s imagination represented body as something extended and this produced a ‘lively and internal sense’, which he took to indicate the truth that the essence of body is extension. However, Du Châtelet held that Descartes’s claim about extension could be proven false by the principle of sufficient reason. She argues that the cause of the existence of extension in the world must lie either in extended things themselves or in some non-extended thing. Since extended things cannot be the cause of themselves, the cause of extension must be simple nonextended beings. She notes, however, that this ‘conclusion *astonishes the imagination*, simple beings are not within its province, they cannot be represented by images, and only the understanding can conceive of them’ (2009: 165, emphasis added). She adds that these simple beings ‘disgust the

imagination’, and that ‘this *rebellion of the imagination* against simple beings comes probably from our habit of representing our ideas with perceivable images, which cannot help us here’ (2009: 173, emphasis added). Du Châtelet saw the imagination as a source of possible error because the illusions it creates are deceptive. However, we can remedy this by the use of the principal of sufficient reason.

Du Châtelet also saw the idea of absolute space as a result of unreasoned imagination (For the debates about absolute space, see Belkind 2007; Garber 1992; Gorham and Slowik 2012, Huggett and Hofer 2015; Janiak 2008; and Lin 2016). Regarding Leibniz’s denial of absolute space, she writes, ‘Mr. Leibniz was right to banish absolute Space from the Universe, and to regard the idea that several Philosophers believe they have, as an *illusion of the imagination* [“une illusion de l’imagination”]’ (Du Châtelet 2017: 5.74). Noting the pictorial representation of extension and absolute space, she writes,

It seems as though we import all of these things into this ideal Being; we house them there and extension receives and contains them, as a vessel receives liquid that is poured into it. Thus, as long as we consider the possibility that many different things may exist together in this abstract being we call *extension*, we form the idea of Space, which is nothing other than the idea of extension joined with the possibility of restoring the coexistent and unified Beings, from which the idea was formed; that is, the determinations that we had already stripped from them by abstraction. (Du Châtelet 2017: 5.79)

Because our imagination allows unlimited combination and abstraction, Du Châtelet argues that the use of imagination alone in physics and metaphysics is methodologically unsound. Without the use of sufficient reason, we fall into error with respect to the nature of material bodies and space, as well as with respect to time where use of imagination leads us to make ‘duration an eternal being’ (2009: 155–56). She is so wary of the use of imagination in these cases that she titles a section of the *Foundations of Physics*, ‘One Must Distrust One’s Imagination and Only Yield to Evidence’ (2009: 126).

While Du Châtelet advises against the use of imagination in physics and metaphysics, she notes that it may be useful in geometry in cases where we consider simple lines and shapes. In addition, she praises the use of imagination with respect to developing testable hypotheses. She writes,

Copernicus, Kepler, Huygens, Descartes, Leibniz, M. Newton himself, have all *imagined* useful hypotheses to explain complicated and difficult phenomena; and the examples of these great men and their success must show how much those who want to banish hypotheses from philosophy misunderstand the interests of the sciences. (2009: 155, emphasis added)

The imagination is useful in the development of hypotheses because we are imagining the possible causes of certain phenomena, which are to be determined

as either true or false through further observation and experiment. In imagining these possibilities, we must draw upon our past experiences of similar instances or abstract from particular circumstances to find general patterns. These mental acts require the use of imagination, which involves memory, recombination, and abstraction in its operations. However, Du Châtelet claims that in order to keep hypotheses from being ‘fictions’ and natural philosophy from being ‘a heap of fables’ (2009: 155), we must obey the two rules of developing hypotheses:

The first is, that it not be in contradiction with the principle of sufficient reason, or with any principles that are the foundations of our knowledge. The second rule is to have certain knowledge of the facts that are within our reach, and to know all the circumstances attendant upon the phenomena we want to explain. (2009: 151)

The key here, of course, is that a good hypothesis is one that is consistent with the two great principles and is sensitive to the nature of reality as we currently understand it. This goes for hypotheses concerning the fundamental nature or essences of things as well. In matters concerning which no empirical study can be done, only first principles are available to help us avoid taking illusion for reality:

So we should accept nothing that violates this fundamental axiom [the principle of sufficient reason]; it keeps a tight rein on the imagination, which often falls into error as soon as it is not restrained by the rules of strict reasoning. (2009: 131)

Despite Du Châtelet’s apparent distrust of the imagination in discovering the fundamental nature of physical beings and metaphysical truths, where its use often leads us to illusions and error, she does think that there are appropriate uses of the imagination. In holding that the imagination is properly used in geometric reasoning and hypothesis development, she departs from the more radical evaluation of the imagination as a deceitful faculty against which reason is helpless. The use of first principles allows us to avoid these illusions. Du Châtelet’s contrast of reason and imagination can be seen in her explanation in choosing Mandeville’s *Fable of the Bees* as a translation project rather than a work of fiction. Zinsser notes that Du Châtelet tells us she favored works of reason over those ‘of imagination’ because ‘reason and morality are of every country’ (2002: 606).

4. Illusions of Happiness, Glory, and Love

Returning to illusions of happiness, I first examine the similarities between Du Châtelet’s views and those of her friend Julien Offray de La Mettrie and then examine the way in which illusions of happiness are not errors.

As Zinsser notes, Du Châtelet’s *Discourse on Happiness* was influenced by works on happiness written by Claude Helvéticus, Voltaire, Montaigne, and La Mettrie (2006). Barbara Whitehead has outlined some similarities between Du Châtelet’s

Discourse on Happiness and La Mettrie's 'Anti-Seneca or the Sovereign Good' (also published as *Discours sur la Bonheur*). Whitehead conjectures that the similarities could be explained by the fact that Du Châtelet and La Mettrie likely discussed some of the views that would occur later in their works (2006: 257). One of the topics that each of them discusses is illusion. Whitehead argues that La Mettrie takes a more radical stance on illusion than does Du Châtelet, as he argues that all illusory states, including dreams and hallucinations (like those caused by opium use), are perfectly good means to happiness. La Mettrie writes of the state induced by opium: 'one would like to remain for eternity; it would be the true paradise of the soul if it were permanent' (1996: 123). He also argues that curing someone of delirium or madness is often a 'disservice' (1996: 124). La Mettrie seems to embrace the more radical stance that any pleasant illusion, delusion, or dream, although completely divorced from reality, adds to our well-being. Finally, La Mettrie questions the utility of reason as a guide to reality or truth. He writes, 'Could not a man's reason be always dreaming, for it deceives us so often, and doubts itself and its evidence in good faith' (1996: 124).

Du Châtelet's stance on beneficial illusions is more nuanced than La Mettrie's view. First, it is likely that Du Châtelet would not accept either dreams or hallucinations as mere illusions. She thinks that illusions can be dispelled through reason, but the position of one in a dream or hallucination is not one where the agent always is capable of using reason. However, Du Châtelet writes in her 1740 *Institutions de physique* (*Foundations of Physics*) that we can tell the difference between dreams and reality when we are awake because dreams violate the principle of sufficient reason. She notes that in dreams one thing instantly may change into another or move to a faraway place, but these occurrences cannot be real as there can be no cause or reason for them.

Yet all these chimeras would be equally possible if effects could exist without sufficient reason; it is this principle that distinguishes dreaming from waking and the real world from the fabulous world that is depicted in fairy tales (2009: 130).

Recall that Du Châtelet thinks sense illusions are those most similar to illusions of happiness, and they are such that they are due to our physical constitution, necessary for our well-being, and are correctible by reason. Recall also that illusions of our inner sense of liberty are not correctable by reason while illusions of the imagination are not necessary for our well-being. Illusions of happiness might seem similar to optical illusions, as du Châtelet claims, but there might seem to be one difference: sense illusions appear unavoidable while illusions of happiness might require some sort of effort on our part. However, Du Châtelet argues that these illusions of happiness come to us as naturally as sense illusions do. After a discussion of the merits of illusion in viewing the opera, she writes,

Some will perhaps say that illusion does not depend on us, and that is only too true, up to a point. We cannot give ourselves illusions any more than we can give ourselves tastes, or passions; but we can keep

the illusions that we have; we can seek not to destroy them. We can choose not to go behind the set, to see the wheels that make flight, and the other machines of theatrical productions. Such is the artifice that we can use, and that artifice is neither useless nor unproductive. (2009: 355)

Du Châtelet implies that the illusions we experience while watching spectacles are natural to us. We are pulled into these performances. If this is so, then it is natural to think that it is due to our human perceptual and mental constitution. But we might wonder why she believes we cannot give ourselves illusions. The answer is that close and critical examination dispels illusions of happiness, and so any subject that we initially approach in this critical way will not be one where we naturally have illusions. Once we see something in this way, we cannot force ourselves to see it in the less critical more 'soft focus' way that we might have seen it. So, for Du Châtelet illusions require a type of willingness to not examine things too closely. This allows us to view something as a pleasing whole rather than fixating on the small imperfections and limitations that will become apparent upon close scrutiny. In the same way, Du Châtelet thinks that once we have lost an illusion, it is impossible to get it back. If we focus on the cables that enable an actor to fly, we will lose the illusion that they do fly by means of their papier-mâché wings. This loss will put a distance between ourselves and the play that will only diminish our pleasure:

Truly, what pleasure would one have at any other spectacle where all is illusion if one was not able to abandon oneself to it? Surely there would be much to lose, and those at the opera who only have the pleasure of the music and the dances have a very meager pleasure, one well below that which this enchanting spectacle viewed as a whole provides. (2009: 355)

There is a reason that human beings love stories, shows, and performances of these types: they bring us pleasure. Du Châtelet seems to hold that we naturally seek pleasure and that we are fitted with the means of improving these pleasures through our susceptibility to illusion. Of course, this natural inclination is consistent with the fact that there are times when we are simply not in the mood or the spectacle at hand fails to immerse us. But when we are immersed in such an illusion, it is only through a conscious act of willing that we dispel the illusion by, for instance, reminding ourselves of how the opera is staged or the ways in which the feats are achieved.

But illusions of happiness are not simply confined to the theatre and the arts. Du Châtelet claims that illusions are helpful in all of our pleasures. She mentions specifically the pleasures of glory and of love. Du Châtelet notes that glory is completely based on illusion but that it produces a real pleasure for us. She writes,

[t]he love of glory that is the source of so many pleasures of the soul and of so many efforts of all sorts that contribute to the happiness, the instruction, and the perfection of society, is entirely founded on

illusion. . . . One does not always acknowledge the enjoyment of the ill-defined desire to be spoken of after one has passed out of existence; but it always stays deep in our heart. Philosophy would have us feel the vanity of it; but the feeling prevails, and this pleasure is not an illusion; for it proves to us the very real benefit of enjoying our future reputation. (2009: 357–58)

The glory of which Du Châtelet speaks is the admiration and acclamation that one receives from others for achieving great things in one's life. This pursuit of glory, she tells us, makes human beings strive to achieve things that are beneficial to their society. The aim of this glory seems to be a sort of immortality in the minds of others—to be remembered well after your death. In Mandeville's *Fable of the Bees*, which Du Châtelet translated into French (with liberal additions), he often speaks of the love of glory as a positive motivating factor in human achievements. He writes of the 'Reward of Glory . . . that it consists in a superlative Felicity which a Man, who is conscious of having perform'd a noble Action, enjoys in Self-love, whilst he is thinking on the Applause he expects of others' (1988: 82).

Glory, however, is illusory in the sense that it depends on what particular societies value as useful or heroic. Du Châtelet notes that women are largely excluded from seeking glory because they lack access to education and are excluded from the professions seen as conducive to glory. There is only one way for women to seek glory—through study:

This love of study holds within it a passion from which a superior soul is never entirely exempt, that of glory. For half the world, glory can only be obtained in this manner, and it is precisely this half whose education made glory inaccessible and made a taste for it impossible. Undeniably, the love of study is much less necessary to the happiness of men than it is to that of women. Men have infinite resources for their happiness that women lack. They have many means to attain glory . . . but women are excluded, by definition, from every kind of glory, and when, by chance, one is born with a rather superior soul, only study remains to console her for all the exclusions and all the dependencies to which she finds herself condemned by her place in society. (2009: 357)

While glory is founded on illusion in that there are no objective means by which it can be achieved, Du Châtelet still believes, like Mandeville, that glory is something that human beings naturally seek, something that brings them the real pleasure that results from the admiration of others. In addition, we can receive pleasure from imagining that this glory will continue after we die. In this way, the illusion of glory is much more like illusions of the imagination than it is like sense illusions. For much of the pleasure we get from glory comes from our imagining, as Mandeville also notes, the applause of others. This is why Du Châtelet recommends that we avoid seeking glory and try not to be ambitious. While the pursuit of glory may produce great pleasure and benefits to society, it is also a

source of great frustration for many (including the half of the population that is largely excluded from its pursuit). Du Châtelet recommends that we make our happiness as little dependent upon others as possible. That is, we should not place the bulk of our well-being in things that depend on the good opinion of society, as she thinks that people judge harshly and are unforgiving of our faults. This said, Du Châtelet thinks that the greatest possible pleasure that we can have is in love, and in love our pleasure is dependent almost completely on another.

In love, according to Du Châtelet, we are most dependent upon others and in greatest need of illusion. In order to maximize the pleasure of love one must give oneself over completely to the passion. In order to do so, one must believe that this love will last forever. Of course, Du Châtelet acknowledges, in reality we all know that the passion of love lessens over time. She writes that the ‘cooling of passion’ seems inevitable and there are not those ‘whose power of illusion never wanes (for where is illusion more important than in love?)’ (2009: 360–61). Du Châtelet also notes that sometimes the passion of love only fades on one side. When this happens, she seems to suggest, someone who is susceptible to illusion may continue to be in love and gain happiness from the illusion of being loved in return. She writes,

I do not mean that unrequited love could make one perfectly happy; but I say that, although our ideas of happiness are not entirely satisfied by the love given us, the pleasure we feel in giving ourselves up to our feelings of tenderness can suffice to make us happy. And if this soul still has the good fortune to be susceptible to illusions, it is not impossible that it should not believe itself more loved perhaps than it is in fact. This soul must love so much that it loves for two, and the warmth of its heart supplies what is, in fact, lacking in its happiness. (2009: 361)

Of course, this brings up a final worry about illusions of happiness. If we can achieve pleasure and happiness from allowing ourselves to engage in an illusion, what is to keep us from either maintaining our illusions perpetually even though they have no basis in reality, or from maintaining illusions that are actually harmful and painful for us? Du Châtelet’s answer is, of course, that it is as necessary for us to use reason to achieve our happiness. The use of reason can break illusions that threaten to become harmful delusions. Du Châtelet holds that in order to maximize our happiness, we must use our reason to determine, to the best of our understanding, our own abilities and circumstances, which passions are most appropriate for our present circumstances, which will serve us best in the long term, and what the appropriate means for obtaining them are. She tells us that with respect to love, it is hard to break the bonds of unrequited love when we are young, but as we age and learn about human nature such feats become easier. In addition, she cautions us to be careful of too quickly placing our happiness in another:

We must attempt, before surrendering to our inclination, to become acquainted with the character of the person to whom we are becoming

attached. Reason must be heard when we take counsel with ourselves; not the reason that condemns all types of commitment as contrary to happiness, but that which, in agreement that one cannot be very happy without loving, wants one to love only in order to be happy, and to conquer an attraction by which it is obvious that one would only suffer unhappiness. (2009: 364)

Du Châtelet claims that we have no other duty in life but to acquire pleasure and happiness. Thus, we must keep in mind the goal of happiness and not submit ourselves unreasonably to persons or passions that we know will cause us to be unhappy. Of course, she acknowledges, human beings do not have perfect control over the passions. Sometimes we give in to delusions of love. When one does, she tells us, 'one must not pride oneself on a constancy that would be as ridiculous as it would be misplaced' (2009: 364). We must regain our reason and not 'blush' at having faltered. Moreover, as Du Châtelet thinks that remorse is not a useful feeling, we must not cause ourselves more unhappiness by regretting our past errors.

Du Châtelet claims at the beginning of the *Discourse* that people think that it is hard to be happy, 'but it would be much easier for men to be happy if reflecting and planning conduct preceded action' (2009: 349). This reflection on what truly will be conducive to our happiness and the appropriate means for achieving it is the only way to dispel the illusions that can lead to error and delusion. While illusion may add a 'polish' to things that are suited to make us happy, it is for reason to determine what is suitable in the first place.

Du Châtelet thinks that we are capable of using our liberty in order to improve our ability to follow passion in accordance with reason. She defines liberty as follows: 'I call liberty the power to think a thing, or to not think, to move or to not move, according to the choice of one's mind' (1989: 484). According to Du Châtelet, liberty comes in degrees. God has the most liberty since he always is able to act on his will. Human beings have a lesser degree of liberty since we are not always able to do as we will. In her essay *On Liberty* she writes,

[L]iberty in man, is the health of the soul. Few people have this health entirely and unalterably. Our liberty is weak and limited like all our other faculties: we can strengthen it as we become accustomed to reflecting and managing our passions; and this exercise of the soul makes it a little stronger. (1989: 487)

The mechanism that Du Châtelet adopts for accomplishing this is John Locke's doctrine of suspension (1975: II.xxi.47–57). She writes,

[w]e have the ability to suspend our desires and to examine what we think is best before choosing it: this is a part of our liberty. The power to then act on this choice is what makes liberty full; and we make many errors when we make bad use of this power we have to suspend our desires by determining ourselves too quickly. (1989: 494)

In making decisions about what passions and tastes we should pursue, we must determine what will most increase our happiness and the best means to achieving our goals. In this, we must make good use of our reason and reflect upon the choices we have:

Lastly, it is for reason to make our happiness. In childhood, our senses alone attend to this task; in youth, the heart and the mind become involved, with the proviso that the heart makes all the decisions; but in middle age reason must take part in the decision, it is for reason to make us feel that we must be happy, whatever it costs. (2009: 364)

Reason may determine that we have to vanquish some of our illusions in order to be happy. We may have to leave love behind and turn to other sources of pleasure. But reason will allow us the illusions that truly do increase our happiness. These illusions are the ones that come to us naturally, promote our well-being, and are ‘correctable’ (when necessary) by reasoning and evidence.

5. Conclusion

When we examine Du Châtelet’s discussions of illusions in her works, we see the different ways in which we are prone to illusion, parameters for which illusions are actually conducive to our well-being, and how we can use reason to correct illusions and avoid error.

Perpetual illusions are not something that Du Châtelet condones because they fail to be responsive to reason and evidence. Thus, perpetual illusions, dreams, and delusions are errors and may be forms of self-deception. The imagination represents things pictorially, and not all subjects are amenable to such representation, such as space, time, and the nature of body. If our imagination represents some picture of the world to us as true, we must verify it through demonstration from first principles or empirical investigation.

Illusions of happiness are like sense illusions. When we see the tower in the distance that appears round to us, although we know from experience that it is actually square, we experience the illusion of the round tower, which is unavoidable, but we can also hold in our minds that the tower we have seen up close is, in reality, square. Thus, reason can dispel the illusion. Likewise, when we go to the theatre, seek glory, or fall in love, we give ourselves over to an experience that, while real, may not present things as they truly are. We can dispel these illusions with our knowledge and experience of how plays are made, actors are paid, and the loves that fade. We often do dispel these illusions as soon as we turn our attention away from the performance or feel the cooling of passion. However, we will gain more pleasure from these illusions if we choose not to dispel them. This is not to recommend a perpetual illusion that cannot be extinguished by the torch of reason. Rather, it is to allow ourselves to succumb wholly to the pleasure of our pursuits. This is what Du Châtelet sees as necessary for the greatest pleasure in the arts, love, and life.

References

- Belkind, Ori. (2007) 'Newton's Conceptual Arguments for Absolute Space'. *International Studies in the Philosophy of Science*, 3, 271–293.
- Bok, Sissela. (2010) *Exploring Happiness: From Aristotle to Brain Science*. London: Yale University Press.
- Descartes, Rene. (1984) *Meditations on First Philosophy*. In John Cottingham, Robert Stoothoff, Dugald Murdoch, and Anthony Kenny (eds.), *Philosophical Writings of Descartes*. Vol 2 (Cambridge: Cambridge University Press), 1–62.
- Detlefsen, Karen. (2014) 'Émilie du Châtelet'. In Edward N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy* (Winter 2018 edition). <https://plato.stanford.edu/archives/win2018/entries/emilie-du-chatelet/>.
- Detlefsen, Karen. (2019) 'Du Châtelet and Descartes on the Roles of Hypothesis and Metaphysics in Natural Philosophy'. In Eileen O'Neill and Marcy Lascano (eds.), *Feminist History of Philosophy: The Recovery and Evaluation of Women's Philosophical Thought* (Dordrecht: Springer), 97–127.
- Du Châtelet, Émilie. (1740) *Institutions de Physique*. Paris: Prault.
- Du Châtelet, Émilie. (1796) 'Réflexions sur le Bonheur.' In Jean Baptiste Antoine Suard and Simon-Jérôme de Bourlet Vauxcelles (eds.), *Opuscules Philosophiques et Littéraires, La plupart Posthumes ou inédites* (Paris: De L'Imprimerie De Chevet), 1–40.
- Du Châtelet, Émilie. (1989) 'Sur la Liberté'. In W. H. Barber (ed.), *Oeuvres complètes de Voltaire*. Vol. 14. *Critical Edition of the Traité de métaphysique Appendix I* (Oxford: Voltaire Foundation), 484–502.
- Du Châtelet, Émilie. (2009) *Selected Philosophical and Scientific Writings*. Edited by Judith P. Zinsser. Translated by Isabelle Bour and Judith P. Zinsser. Chicago: University of Chicago Press.
- Du Châtelet, Émilie. (2017) 'On Space'. In *Foundations of Physics*. Translated by Katherine Brading. https://docs.wixstatic.com/ugd/96f981_bccfdcebf5b14b5ea3853e276a9fb705.pdf
- Garber, Daniel (1992). *Descartes' Metaphysical Physics*. Chicago: University of Chicago Press.
- Gorham, Geoffrey, and Edward Slowik, eds. (2012) 'Absolute Space and Time'. Special issue. *Intellectual History Review*, 22.
- Hagengruber, Ruth (2011) *Émilie Du Châtelet: Between Leibniz and Newton*. London: Springer.
- Huggett, Nick, and Carl Hofer. (2015) 'Absolute and Relational Theories of Space and Motion'. In Edward N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy* (Spring 2018 edition). <https://plato.stanford.edu/archives/spr2018/entries/spacetime-theories/>.
- Hume, David. (2007) *A Treatise of Human Nature*. Vol. 1. Edited by David Fate Norton and Mary J. Norton. Oxford: Oxford Clarendon Press.
- Hutton, Sarah. (2004) 'Émilie Du Châtelet's *Institutions de physique* as a Document in the History of French Newtonianism'. *Studies in the History and Philosophy of Science*, 35, 515–31.
- Hutton, Sarah. (2011) 'Between Newton and Leibniz: Émilie Du Châtelet and Samuel Clarke'. In Ruth Hagengruber (ed.), *Émilie Du Châtelet: Between Leibniz and Newton* (London: Springer), 77–96.
- Janiak, Andrew. (2008) *Newton as Philosopher*. Cambridge: Cambridge University Press.
- La Mettrie, Julien Offray de. (1996) 'Anti-Seneca or the Sovereign Good'. In Ann Thomson (ed.), *La Mettrie: Man and Machine and Other Writings* (Cambridge: Cambridge University Press), 116–43.
- Leibniz, Gottfried Wilhelm. (2000) *Leibniz Clarke: Correspondence*. Edited by Roger Ariew. Indianapolis: Hackett.
- Lin, Martin. (2016) 'Leibniz on the Modal Status of Absolute Space and Time'. *Nous*, 50, 447–64.

- Locke, John. (1975) *An Essay Concerning Human Understanding*. Edited by John Nidditch. Oxford: Oxford University Press.
- Malebranche, Nicolas. (1997) *The Search after Truth: With Elucidations of the Search after Truth*. Edited by Thomas M. Lennon and Paul J. Olscamp. Cambridge: Cambridge University Press.
- Mandeville, Bernard. (1988) *The Fable of the Bees or Private Vices, Publick Benefits*. Vol. 1 Indianapolis: Liberty Fund. <http://oll.libertyfund.org/titles/846>.
- Melamed, Yitzhak, and Martin Lin. (2010) 'Principle of Sufficient Reason'. In Edward N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy* (Fall 2011 edition). <https://plato.stanford.edu/archives/fall2011/entries/sufficient-reason/>.
- Montaigne, Michel de. (1987) 'On the Power of the Imagination'. In M. A. Screech (ed. and trans.), *Michel De Montaigne: The Complete Essays* (London: Penguin Books), 109–120.
- Pascal, Blaise. (2006) *Pensées*. Project Gutenberg (accessed April 14, 2018). <http://www.gutenberg.org/files/18269/18269-h/18269-h.htm>.
- Sleigh, R.C. Jr. (1983) 'Leibniz on the Two Great Principles of All Our Reasoning'. *Midwest Studies in Philosophy*, 8, 193–215.
- Whitehead, Barbara. (2006) 'The Singularity of Mme Du Châtelet: An Analysis of the *Discours sur le Bonheur*'. In Judith P. Zinsser and Julie Candler Hayes (eds.), *Emilie Du Châtelet: Rewriting Enlightenment Philosophy and Science* (Oxford: Voltaire Foundation), 255–76.
- Zinsser, Judith P. (2002). 'Entrepreneur of the "Republic of Letters": Emilie de Breteuil, Marquise Du Châtelet, and Bernard Mandeville's Fable of the Bees'. *French Historical Studies*, 25, 596–624.
- Zinsser, Judith P. (2006) *La Dame d'Esprit: A Biography of the Marquise Du Châtelet*. New York: Penguin.
- Zinsser, Judith P. (2011) 'Du Châtelet and the Rhetoric of Science'. In Judy A. Hayden (ed.), *The New Science and Women's Literary Discourse: Prefiguring Frankenstein* (New York: Palgrave Macmillan), 133–46.