

14 Locke on Judgment

I. INTRODUCTION

Locke usually uses the term “judgment” in a rather narrow but not unusual sense, as referring to the faculty that produces probable opinion or assent.² His account is explicitly developed by analogy with his account of knowledge, and like that account, it is developed in terms of the relation various ideas bear to one another. Whereas knowledge is the *perception* of the agreement or disagreement of any of our ideas, judgment is the *presumption* of their agreement or disagreement. Intuitive knowledge is the immediate perception of the agreement or disagreement of two ideas, for example, white is not black. If we perceive the idea of white, and the idea of black, nothing more is needed to perceive that white and black disagree with respect to identity. We just see or intuit it. Demonstrative knowledge is more complicated. Suppose we have or perceive the idea of the internal angles of a triangle, and also the idea of two right angles. Unless one is a prodigy, one can’t just “see” that these two ideas agree with respect to equality; a demonstration is needed. For Locke, such a demonstration requires that we find another idea, such as 180 degrees, so that we can intuit that this

¹ Some of the themes in this paper were first explored in Owen 1999a, 1999b, and 2003. I am very grateful to Lex Newman, Michael Jacovides, Walter Ott, Dario Perinetti, and Don Garrett for critical comments and advice.

² See entry 7a under “judgement or judgment” in the OED: “The formation of an opinion or notion concerning something by exercising the mind upon it; an opinion, estimate.” Characteristically, Locke uses the term “judgment” to refer, not just to the faculty that produces beliefs or opinions, but also to the characteristic activity of the faculty, and to the belief or opinion produced by the faculty. “Knowledge” is used in a similarly broad way.

idea stands in the relation of equality both to the internal angles of a triangle, and to two right angles. Thus a demonstration, for Locke, is a chain of ideas, such that each idea in the chain is intuitively seen to agree or disagree with its neighbours. A demonstration is a series of intuitions.

But now suppose that instead of constructing a demonstration to show that the internal angles of a triangle are equal to two right angles, we simply take the word of our math teacher. She tells us that the internal angles of a triangle are equal to two right angles, and we believe her. In this case we do not have demonstrative knowledge, but only probable belief or opinion. We presume an agreement between two ideas, an agreement that we could have perceived if we had constructed the demonstration. And note that this presumption must always have grounds or a cause.³ The testimony and veracity of our teacher causes us to believe that the internal angles of a triangle are equal to two right angles. According to Locke, this grounding of our belief just is probable reasoning. There is no immediate belief, as there is immediate knowledge. All belief is the result of probable reasoning; that is to say, all belief is inferential.

Locke developed his account of judgment, probability, and belief to supplement his account of knowledge. Knowledge, it turns out, is very limited, and in many matters, including the empirical investigation of nature, we must use our judgment and be guided by probability. As knowledge is the perception of the agreement or disagreement of ideas, so judgment is the presumption of such agreement or disagreement. Belief is seen as an approximation to knowledge; belief is like knowledge but less so. Judgment shares an important characteristic with knowledge: it is more or less involuntary. Although we can choose whether or not to open our eyes, and in which direction to look, we can't control which ideas appear to us, or whether they agree or disagree. Similarly, although we can decide whether or not to continue our enquiries, we cannot decide what to believe, given the evidence we have.

The ascription of several of these theses to Locke is controversial, and I will defend them in some detail in section 3 of this paper. But

³ The two grounds of probability are the uniformity of nature and the veracity of testimony. Unlike Hume, Locke does not seem very interested in the question of how these grounds themselves are to be accounted for.

one thing is no longer controversial.⁴ Even in this narrow sense, judgment is clearly an important topic for Locke. At the very beginning of the *Essay*, Locke announces that the purpose of his essay is to enquire into, not just knowledge, but also opinion or belief. Locke's account of it, combined with his account of sensitive knowledge, can be seen as the beginning of the modern conception of empirical knowledge.

There is a broader sense of 'judgment' that Locke is concerned with, though he never addressed it using that term.⁵ Descartes distinguished between the intellect and the will. The intellect perceives various ideas or propositions, but it is the will that asserts or denies such a proposition to be true. Judgment in the broad sense is judging something to be true or false. According to Descartes, making a judgment requires not only the intellect but also the will. In some respects, this is similar to the modern, post-Fregean view. The grasping or understanding of the content of a proposition is one matter; our asserting or denying it is another. When I assert the truth-functional conditional "If the president dies when in office, the vice president becomes president," I assert neither that the president died in office nor that the vice president became president. But I must understand the content of those unasserted propositions if I am to understand the content of the conditional.

The modern view about the distinction between understanding a proposition and asserting or denying it is very familiar to contemporary philosophers, and it is similar enough to Descartes's view that it is very easy to think that Descartes's view was pretty standard in early modern philosophy. It is thus tempting to read that view into Locke. In section 2 of this chapter, I will argue that

⁴ I say "no longer" because until recently, belief, judgment, and probability were topics in Locke that were largely ignored. There was, for instance, no chapter devoted to it in *The Cambridge Companion to Locke* (Chappell 1994), though Wolterstorff's essay (1994) in that volume presents an interpretation. But more recently, even introductory books on Locke contain discussions of it. See Jolley 1999 and Lowe 1995. Jolley says, "A major theme of Book 4 is thus the very limited nature of our knowledge in the strict sense; in many of the areas of enquiry, including what we know call science, we must be content with probability" (Jolley 1999: 188).

⁵ See entry 9b under "judgment or judgment" in the OED: "The action of mentally apprehending the relation between two objects of thought; predication, as an act of mind. With *pl.* A mental assertion or statement; a proposition, as formed in the mind."

Descartes's view was nonstandard in early modern philosophy, and that Locke, like many others, held the view that forming a proposition and understanding its content is the very same thing as affirming or denying the proposition. The act of judgment, broadly conceived, is an act of the understanding, and not divisible into separate acts of the intellect and the will, as Descartes thought. Furthermore, Locke thought it to be a *single* act of the understanding. One might still reject the Cartesian view and claim that that judgment involves only the understanding, while maintaining that judgment has two components: grasping or understanding a proposition, on the one hand, and asserting or denying the proposition, on the other. But Locke thought that there aren't two acts of the understanding here, but only one. Predication just is affirming or denying.

2. JUDGMENT AND PROPOSITIONS

In "Of Power," Locke says:

The power of Perception is that which we call the Understanding. Perception, which we make the act of the Understanding, is of three sorts: 1. The Perception of *Ideas* in our Minds. 2. The Perception of the signification of Signs. 3. The Perception of the Connexion or Repugnancy, Agreement or Disagreement, that there is between any of our *Ideas*. All these are attributed to the *Understanding*, or perceptive Power, though it be the two latter only that use allows us to say we understand. (E II.xxi.5: 236)

The perception of ideas is the most fundamental psychological relation for Locke. Perceiving an idea is the way we are aware of our ideas. Ideas are here functioning like terms in traditional logic. Just as in logic terms can be combined in special ways to produce propositions, so for Locke, ideas can be combined to produce propositions. This involves the third sort of perception, the perception of the agreement or disagreement between any of our ideas. It is very difficult to read what Locke says here without thinking of his famous account of knowledge:

Knowledge then seems to me to be nothing but *the perception of the connexion and agreement, or disagreement and repugnancy of any of our Ideas*. In this alone it consists. Where this perception is, there is

Knowledge, and where it is not, there, though we may fancy, guess, or believe, yet we always come short of Knowledge. (E IV.i.2: 525)

When “the Mind perceives the Agreement or Disagreement of two *Ideas* immediately by themselves, without the intervention of any other” (E IV.ii.1: 530–1), we have intuitive knowledge. “[W]hen the Mind cannot so bring it *Ideas* together, as by their immediate Comparison . . . to perceive their Agreement or Disagreement, it is fain, by the Intervention of other *Ideas* (one or more, as it happens) to discover the Agreement or Disagreement, which it searches” (E IV.ii.2: 532). This process is called demonstrative reasoning or demonstration, and the result is demonstrative knowledge. The third degree of knowledge is sensitive knowledge, or the knowledge “of the existence of particular external Objects, by that perception and Consciousness we have of the actual entrance of *Ideas* from them” (E IV.ii.14: 537–8). Sensitive knowledge is problematic, as it does not seem to be a matter of perceiving the agreement or disagreement of two ideas. But note, it is still a form of perception, the perception “we have of the actual entrance of *Ideas* from” external objects. It is arguable that this is the second of the three sorts of perception that Locke distinguishes in “Of Power,” quoted earlier; sensitive knowledge is the perception of the signification of signs. We perceive not only ideas (the first sort of perception) but also their signification (the third sort of perception).⁶

Knowledge is the perception of the agreement or disagreement of ideas. How can we map this account onto talk of propositions as representing the content of knowledge? And once we do that, how should we answer the question about judgment in the broad sense? Is it one thing to understand a proposition, and another thing to assent to it or judge it to be true? According to Locke, is there a single act of judgment, or is the process divided into two stages, understanding and assent? The answer is clear with respect to Descartes. Consider *Principles* I: 32:

32. We possess only two modes of thinking: the perception of the intellect and the operation of the will.

⁶ See also “Of the Division of the Sciences” (E IV.xxi.1–5). This is the merest suggestion of how one might think of sensitive knowledge. The problem is deep and troublesome and has concerned Locke scholars for decades, if not centuries. Lex Newman presents an elegant and novel account in his contribution to this volume.

All the modes of thinking that we experience within ourselves can be brought under two general headings: perception, or the operation of the intellect, and volition, or the operation of the will. Sensory perception, imagination and pure understanding are simply various modes of perception; desire, aversion, assertion, denial and doubt are various modes of willing.

The understanding presents us with a proposition, and the will asserts or denies it. As far as I can tell, Descartes is not very interested in the structure of such propositions. Sometimes they are merely ideas, such as the idea of God. But when presented with a proposition, it is up to the will to assert or deny it. And it is this assertion or denial that constitutes making a judgment. Consider *Principles* I: 34:

34. Making a judgement requires not only the intellect but also the will.

In order to make a judgement, the intellect is of course required since, in the case of something which we do not in any way perceive, there is no judgement we can make. But the will is also required so that, once something is perceived in some manner, our assent may then be given.

I don't think there is much doubt about Descartes's motivation. Putting judgment in the hands of the will helps to solve the problem of error. "Now when we perceive something, so long as we do not make any assertion or denial about it, we clearly avoid error." Furthermore, the division of labour between the understanding and the will fits into Descartes's theory of clear and distinct perception. "And we equally avoid error when we confine our assertions or denials to what we clearly and distinctly perceive should be asserted or denied" (*Principles* I:33). Note that the proposition must be understood in order for it to be asserted or denied; understanding is logically prior to assent.⁷ So Descartes divides judgment, in the broad sense, into two parts: understanding a proposition is a process of perception, and belongs to the understanding; affirming or denying a proposition is a matter of assertion, and belongs to the will.⁸

⁷ The details of Descartes's account are complicated by his doctrine of clear and distinct perception. In ordinary cases, we understand the proposition, and then give our assent. But when we clearly and distinctly perceive something, the will is determined to assent; the act is no longer voluntary.

⁸ Again, for our purposes, it is not important that Descartes divides judgment between the understanding and the will. For the contrast with Locke, what is

Although their motivation is entirely different, post-Fregean philosophers have a broadly similar account. Geach is perhaps the clearest:

A thought may have just the same content whether you assent to its truth or not; a proposition may occur in discourse now asserted, now unasserted, and yet be recognizably the same proposition. This may appear so obviously true as to be hardly worth saying; but we shall see it *is* worth saying. (Geach 1972: 254–5)

Geach calls this “*the Frege point*, after the logician who was the first (so far as I know) to make the point clearly and emphatically.” Several of Geach’s arguments claim that the Frege point is needed to understand truth-functional connectives. When we assert *P* or *Q*, we assert neither *P* nor *Q*. “[S]o if we say that the truth value of the whole proposition is determined by the truth values of the disjuncts, we are committed to recognizing that the disjuncts have truth values independently of being actually asserted” (Geach 1972: 258).

Another argument, more relevant to our purposes, concerns predication and assertion. According to Geach, many logicians confuse predicating *P* of *S* with affirming that *S is P*:

A further difficulty arises over the expression “assertion about something”. Round this and similar expressions there is piled a secular accumulation of logical error; we have here a suggestion that “*P*” is predicated of *S* only if it is actually asserted, affirmed, that *S is P*. A moments consideration ought to have shown that this will not do: “*P*” may be predicated of *S* in an *if* or a *then* clause, or in a clause of a disjunction, without the speaker’s being in the least committed to affirming that *S is P*. Yet it took the genius of the young Frege to dissolve the monstrous and unholy union that previous logicians had made between the import of a predicate and the assertoric force of a sentence. Even when a sentence has assertoric force, this attaches to the sentence as a whole; not specially to the subject, or to the predicate, or to any part of the sentence. (Geach 1960: 24)

Who were the logicians who perpetrated this monstrous and unholy conflation of predication and affirmation? Geach had in mind Frege’s immediate predecessors, as well as mid twentieth century philosophers such as Ryle and Strawson.⁹ It looks as if

important is that Descartes requires two acts for judgment: one of grasping the content of a proposition, the other of assenting to it.

⁹ For further discussion by Geach, see Geach 1963: 131–4.

Descartes and his followers are exempt, but if Geach and I are right, then most other philosophers in the early modern period are guilty. Predicating *S* of *P* just was affirming that *S* is *P*. In the remainder of this section I'll argue that this is certainly true of Locke.¹⁰

For Locke, knowledge is the perception of the agreement or disagreement of ideas. Propositions represent the content of what we know. The question is, does Locke think that it is one thing to form a proposition, and another to assent to it in a separate act of mind? Does Locke have a propositional-attitude psychology? Or does he think, as Geach alleges that so many pre-Fregeans thought, that the act of assertion or affirmation just is an act of predication or proposition formation? There are some texts that give support to the propositional-attitude interpretation. In "Of Universal Propositions, their Truth and Certainty," he distinguishes certainty of truth from certainty of knowledge:

Certainty of Truth is, when Words are so put together in Propositions, as exactly to express the agreement or disagreement of the *Ideas* they stand for, as really it is. *Certainty of Knowledge* is, to perceive the agreement or disagreement of *Ideas*, as expressed in any Proposition. This we usually call knowing, or being certain of the Truth of any Proposition. (E IV.vi.3: 579–80)

This could be interpreted as saying that it is the agreement of ideas that constitutes a proposition, while it is perception of that agreement that constitutes knowledge. If Locke could also account for what it is to consider or entertain a proposition, independently of

¹⁰ Of course, this is very controversial. The best discussion I know is in Ott 2002 and Ott 2004 (Chapter 2), though Ott and I come to diametrically opposed conclusions. Ott argues that the philosophers of the early modern period did not conflate assertion and predication. Instead, he suggests, their concerns with predication were much like Russell's concerns about the unity of the proposition. For discussion of Russell and the unity of the proposition, see Hylton 1984, and for more detail, Hylton 1990. Buroker (1993) argues that Arnauld and Nicole, in the *Port Royal Logic*, present a single-act account of judgment, where predication just is affirmation or denial. Wolterstorff (1994, 1996) and Nuchelmans (1983: 139–47) present a view of Locke that separates understanding a proposition from affirming or denying it. Bennett (1994) suggests that Locke might be sympathetic to the view of belief where we first entertain a proposition in some neutral way, and then take some attitude toward it. Michael Ayers criticizes both Bennett 1994 and Wolterstorff 1994 in Ayers 1997. See also Ayers 1991, especially volume I, *Epistemology*, Chapters 3 and 13. Ayers's views on Locke, in these chapters as elsewhere, have been very influential on me.

affirming or denying it, then it looks as if he could escape Geach's charge.¹¹

Locke's main treatment of propositions is found in the first six sections of Chapter v of Book IV, "Of Truth in General."¹² He there says that truth is

the joining or separating of Signs, as the Things signified by them, do agree or disagree one with another. The joining or separating of signs here meant is what by another name, we call Proposition. (E IV.v.2: 574)

So a proposition is constructed by the joining or separating of signs. There are two sorts of signs, ideas and words, so there are two sorts of propositions, mental and verbal. Locke has this to say about these propositions:

First, Mental, wherein the Ideas, in our Understandings are without the use of Words put together, or separated by the Mind, perceiving, or judging of their Agreement, or Disagreement.

Secondly, Verbal Propostions, which are Words the signs of our Ideas put together or separated in affirmative or negative Sentences. By which affirming or denying, these Signs, made by Sounds, are as it were put together or separated one from another. (E IV.v.5: 575–6)

Mental propositions are constructed by putting together or separating ideas. Ideas are put together or separated by perceiving, or judging, of their agreement or disagreement.¹³ But perceiving, or judging, of two ideas' agreement or disagreement just is knowing or believing something. So constructing a proposition is the very same mental act as knowing or believing. Verbal propositions are constructed in an analogous fashion, by affirmation or denial. Constructing a verbal proposition is the very same thing as affirming or denying it.

Consider again what Locke says about mental propositions. Mental propositions are ideas "*put together, or separated by the*

¹¹ Other problems would remain. As Don Garrett has pointed out to me, if Locke thought that it was the agreement or disagreement of ideas that constituted a proposition, then it is utterly unclear what a false proposition could be.

¹² See also E II.xxxii.1, 19: 384, 391; and E III.vii.1: 471, where Locke says "*Is, and Is not, are the general marks of the Mind, affirming, or denying.*"

¹³ "Judging" is here used in Locke's technical sense. To judge, presume, or suppose, rather than perceive, two ideas to agree or disagree is to believe, rather than know, some proposition.

Mind, perceiving, or judging of their Agreement, or Disagreement." I have suggested that the most natural way of reading this is to interpret Locke as claiming that there is but one act here. We put together, or separate, ideas *by* perceiving, or judging, their agreement or disagreement. But another reading is possible, one that renders this passage consistent with a two-act reading.¹⁴ First of all, there is the joining or separating of ideas. This is the act of proposition formation. Then there is a second act of perceiving, or judging, the ideas already put together, to agree or disagree. This results in affirming the proposition to be true. Some support for this interpretation comes from E IV.v.6: 576, where Locke talks about a person who "perceives, believes, or supposes" the agreement or disagreement of ideas. According to this line of thought,¹⁵ it is one thing to suppose or consider a proposition, by joining or separating ideas, but quite another thing to affirm the proposition by perceiving or judging the proposition to be true.

I do not think this interpretation can be sustained. Locke reaffirms this single-act theory of judgment, in the broad sense, in the very next section:

Every one's Experience will satisfy him, that the Mind, either by perceiving or supposing the Agreement or Disagreement of any of its *Ideas*, does tacitly within it self put them into a kind of Proposition affirmative or negative, which I have endeavoured to express by the terms *Putting together* and *Separating*.¹⁶

This passage is unambiguous. Constructing a proposition is putting together or separating ideas. But the mind puts together or separates ideas simply by perceiving or presuming agreement or disagreement. One constructs a proposition by affirming or denying. Predicating *P* of *S* just is affirming that *S is P*. It looks as if Locke had the resources to put forward a two-act theory. He could have

¹⁴ This possibility was pointed out to me by Don Garrett and Lex Newman, in correspondence.

¹⁵ Suggested to me by Walter Ott, in correspondence.

¹⁶ Note that "[p]erceiving or supposing" here is just like "perceiving or judging" in the previous quotation. Perceiving leads to knowledge, while supposing leads to belief. This helps us properly understand the "perceives, believes, or supposes" passage. There are not three things here, but only two. One the one hand, we can perceive agreement; on the other hand, we can believe or suppose such an agreement.

held that it is one thing to join or separate ideas, thus forming a proposition that is understood, and quite a different thing to assert a proposition, by perceiving or presuming the agreement or disagreement of the ideas previously joined or separated. But I think the textual evidence clearly points to the view that Locke held a one-act theory. Proposition formation, predication, assertion, and affirmation all come down a single act of perceiving or presuming agreement of ideas. Geach's charge stands.

If this indeed is Locke's theory, then he is going to have trouble with conditionals.¹⁷ This is hardly surprising; everybody had trouble with conditionals before Frege. What is more troublesome is that the single-act account of judgment seems to rule out what every philosopher needs to allow. We need to be able to consider, suppose, or entertain propositions prior to committing ourselves to their truth or falsity. Locke is well aware of this need. For instance, when discussing the limitations of what we know, he says:

We have the *Ideas* of a *Square*, a *Circle*, and *Equality*; and yet, perhaps, shall never be able to find a *Circle* equal to a *Square*, and certainly know that it is so. (E IV.iii.6: 540)¹⁸

But if proposition formation just is affirmation or denial, how is this possible? The question is not settled by reflection on the relatively involuntary nature of knowledge and belief in Locke. Consider a geometric demonstration. Suppose we want to demonstrate that the internal angles of a triangle are equal to two right angles. We need to construct a chain of ideas, such that each idea is intuitively seen to agree with its adjacent neighbours in the chain. If the chain is successfully constructed, we then indirectly see the agreement in size between the two angles. We can't follow the chain of reasoning and refuse to accept the fact that the ideas agree. It is not up to us. But before we construct the chain, can't we wonder or consider whether the two angles are equal? We must be able to; otherwise we wouldn't know what the demonstration was supposed to show. It is arguable that the same is true of intuition. It doesn't take much

¹⁷ See, for instance, the discussion in *Logic or the Art of Thinking*, Arnauld and Nicole 1996: 99–101.

¹⁸ Thanks to Michael Jacovides for reminding me of this passage, and of its importance to the matter at hand.

thought to intuit that three is greater than two. But can't we raise the question before perceiving their agreement?

The way Locke sets up the issue in the demonstration case is this: "Thus the Mind being willing to know the Agreement or Disagreement in bigness, between the three Angles of a Triangle, and two right ones, cannot by an immediate view and comparing them, do it" (E IV ii 2: 532). Being ignorant of and wanting to know whether two ideas agree or disagree may be enough. We want to know whether to affirm or deny the equality of the one angle with another. That is to say, we want to know which proposition to construct.

This does not solve the problem; it only restates it. To wonder which proposition to construct, and whether two ideas agree or disagree, is to consider whether a proposition is true or not. But this cannot be done without having the proposition in mind. Locke does have a solution to the problem, and it involves his account of belief and assent (judgment in the narrow sense), the topic of the next section of this chapter. This much can be said now. Belief is the presumption of agreement or disagreement between two ideas, and it ranges from near-certainty of agreement to near-certainty of disagreement. Locke calls the relation the mind has to these states "entertainment."¹⁹ One such list of entertainments seems to go from full belief to full disbelief: "*Belief, Conjecture, Doubt, Wavering, Distrust, Disbelief*" (E IV.xvi.9: 663). So when we make a conjecture, we are actually presuming that the two ideas agree or disagree. There is a continuum, ranging from full belief to full disbelief. And it has a midpoint. So when we are wondering whether a proposition is true or false, we are actually judging (in Locke's technical sense) that it is true, with a certain degree of probability, (e.g., 50 percent). Elsewhere, Locke talks about "Assent, Suspense, or Dissent" (E IV xx 15: 716). Suspense seems to be midway between full assent and full dissent. Locke thus has a way out of the problem. Even with a single-act account of judgment in the broad sense, Locke has an adequate way to allow us to consider propositions prior to constructing a demonstration or investigating the

¹⁹ See E IV.xv.3: 655 and E IV.xvi.9: 663. It is important to realize that "entertainment" in these places doesn't mean "hypothetical consideration." It means "the belief or disbelief" we have in some claim or other.

grounds of probability: we can form a belief state midway between full assent and full dissent.

3. JUDGMENT, PROBABLE REASONING, AND BELIEF

Locke thought that knowledge is the perception of the agreement or disagreement of ideas. But knowledge, Locke thought, is “very short and scanty” (E IV.xiv.1: 652). Fortunately, the “Mind has two Faculties, conversant about Truth and Falshood.” The mind not only has the faculty of knowledge, “whereby it certainly perceives, and is undoubtedly satisfied of the Agreement or Disagreement of any *Ideas*.” It also has judgment, “which is the putting *Ideas* together, or separating them from one another in the mind, when their certain Agreement or Disagreement is not perceived, but *presumed* to be so” (E IV.xiv.4: 653). This is Locke’s technical sense of “judgment,” to the examination of which we shall now turn. Knowledge is the perception of agreement or disagreement of ideas, while belief, judgment, or assent is the presumption or supposition that the ideas agree or disagree. Belief seems to be an approximation to knowledge; where we cannot or do not perceive agreement, we make do with supposing it.

From the very beginning of the *Essay*, Locke emphasizes the importance of belief or opinion as something needed to supplement knowledge. The three main tasks of the *Essay* are an enquiry into the origin of ideas, an enquiry into the nature of knowledge, and, Locke says,

Thirdly, I shall make some Enquiry into the Nature and Grounds of *Faith*, or *Opinion*: whereby I mean that Assent, which we give to any Proposition as true, of whose Truth yet we have no certain Knowledge: And here we shall have Occasion to examine the Reasons and Degrees of *Assent*. (E I.i.3: 43)

A little later, he points out the importance of not demanding demonstration and certainty where only opinion and probability is available to us:

And we shall then use our Understandings right, when we entertain all Objects in that Way and Proportion, that they are suited to our Faculties; and upon those Grounds, they are capable of being propos’d to us; and not preemtorily, or intemperately require Demonstration, and demand

Certainty, where Probability only is to be had, and which is sufficient to govern all our Concernments. If we will disbelieve every thing, because we cannot certainly know all things; we shall do much-what as wisely as he, who would not use his Legs, but sit still and perish, because he had no Wings to fly. (E I.i.5: 46)

The bulk of Locke's discussion of judgment comes in Chapters xiv to xxi of Book IV. Although some of the important themes of these chapters are matters of faith and religion, Locke's discussion of judgment is not limited to these. Our knowledge of the natural world is severely limited. Intuitive and demonstrative knowledge is hampered by our lack of the perception of any necessary connection between many of our ideas:

This, how weighty and considerable a part soever of Humane Science, is yet very narrow, and scarce any at all. The reason whereof is, that the simple *Ideas* whereof our complex *Ideas* of Substances are made up, are, for the most part such, as carry with them, in their own Nature, no visible necessary connexion, or inconsistency with any other simple *Ideas*, whose *co-existence* with them we would inform our selves about. (E IV.iii.10: 544)

Locke says that whatever comes short of intuition and demonstration, "with what assurance soever embraced, is but Faith, or Opinion, but not knowledge, *at least in all general Truths*" (E IV. ii.14: 537; emphasis mine). Sensitive knowledge does pick up some of the slack, but it has to do only with "*the particular existence of finite Beings without us.*" General truths about substances, such as "All gold is fixed," cannot be known, either through intuitive, demonstrative, or sensitive knowledge: "it is impossible that we certainly know the Truth of this Proposition, *That all gold is fixed.*" (E IV.vi.8: 583)²⁰

Sensitive knowledge is not just limited to the particular; it is also limited to the present testimony of the senses. Sensitive "*Knowledge extends as far as the present Testimony of our senses*, employ'd about particular Objects, that do affect them, *and no farther*" (E IV.xi.9: 635). To use Locke's example, if I see a man in

²⁰ A qualification needs to be made to this negative claim. Certain trivial general truths about substances can be known, when the idea of the predicate is contained in the idea of the subject. "*All gold is malleable . . . is a very certain Proposition, if Malleableness be part of the complex Idea that the word Gold stands for*" (E IV. vi.9: 583).

my room, I have sensitive knowledge of his existence. If he leaves my presence, I have a memory that he did exist while he was in my room, but I no longer have knowledge of his current existence: "by a thousand ways ways he may cease to be, since I had the Testimony of my Senses for his Existence." Probability steps in to fill the void left by our limited knowledge:

And therefore though it be highly probable, that Millions of Men do now exist, yet whilst I am alone writing this, I have not that Certainty of it, which we strictly call Knowledge; though the great likelihood of it puts me past doubt, and it be reasonable for me to do several things upon the confidence, that there are Men . . . now in the World: but this is but probability, not Knowledge. (E IV.xi.9: 635–6)²¹

Those who would enquire into the nature of the physical world must make do with experience, and the general beliefs thereby provided. "Our Knowledge in all these Enquiries, reaches very little farther than our Experience" (E IV.iii.14: 546). But we need not, and should not, confine ourselves to knowledge, either in ordinary life or in physical enquiries:

He that will not eat, till he has Demonstration that it will nourish him; he that will not stir, till he infallibly knows the Business he goes about will succeed, will have little else to do, but sit still and perish, (E IV.xiv.1: 652)²²

As mentioned in the introduction to this chapter, Locke thinks that, although we are forced to rely on judgment or probability where knowledge is unavailable, we sometimes rely on probable belief even where knowledge is possible. For instance, we might believe that the internal angles of a triangle are equal to two right angles, or we might know it on the basis of demonstration. In general,

The Mind sometimes exercises this *Judgment* out of necessity, where demonstrative Proofs, and certain knowledge are not to be had; and sometimes out of Laziness, Unskilfulness, or Haste, even where demonstrative and certain Proofs are to be had. (E IV.xiv.3: 653)

²¹ Note that Locke is here setting up the problem that so exercised Hume: how do we come to have beliefs in the unobserved, which go beyond the present evidence of the senses and memory?

²² See also E IV.xi.10: 636: "He that in the ordinary Affairs of Life, would admit of nothing but direct plain Demonstration, would be sure of nothing, in this World, but of perishing quickly."

Judgment is introduced as analogous to knowledge, and the product of judgment is like the product of knowledge, only weaker. In knowledge, we perceive the agreement or disagreement of ideas; in judgment, we only presume such an agreement or disagreement:

Thus the Mind has two Faculties, conversant about Truth and Falshood.

First, Knowledge, whereby it certainly perceives, and is undoubtedly satisfied of the Agreement or Disagreement of any *Ideas*.

Secondly, Judgment, which is the putting *Ideas* together, or separating them from one another in the Mind, when their certain Agreement or Disagreement is not perceived, but *presumed* to be so . . . (E IV.xiv.4: 653)

Just as Locke introduced judgment by analogy with knowledge, so Locke introduces probability by analogy with demonstration:

As Demonstration is the shewing the Agreement, or Disagreement of two *Ideas*, by the intervention of one or more Proofs, which have a constant, immutable, and visible connexion one with another: so *Probability* is nothing but the appearance of such an Agreement, or Disagreement, by the intervention of Proofs, whose connexion is not constant and immutable, or at least is not perceived to be so, but is, or appears for the most part to be so, and is enough to induce the Mind to *judge* the Proposition to be true, or false, rather than the contrary. (E IV.xv.1: 654)

Probability is the appearance of agreement or disagreement of ideas, and it causes our assent. That is, it causes us to presume the ideas to agree or disagree, where we do not perceive that agreement.

For Locke, a demonstration is a series of intuitions. A demonstration is a chain of ideas; each idea is intuitively connected to its adjacent ideas in the chain. We immediately see the intuitive relation between any two ideas in the chain. Locke calls these intermediate ideas "proofs." We indirectly or inferentially see the agreement or disagreement of the ideas at each end of the chain, via the immediate perception of the agreement or disagreement of the intermediate ideas or proofs.²³ For example, when we know that the internal angles of a triangle are equal to two right angles, we have the idea of the internal angles of a triangle, and the idea of the two right angles. We cannot immediately see the agreement

²³ See E IV.ii.2–8: 531–4. For an extended discussion, see Owen 1999b, Chapter 3.

between them. But it is easy enough to construct another angle, and to see immediately that that angle is equal both to the internal angles of a triangle and to two right angles. Since Locke makes so much of the analogy between demonstrative and probable reasoning, one might think that the structure of probable reasoning is as follows. Just as demonstrative knowledge is the indirect perception of the agreement of two ideas, via a chain of intermediate ideas or proofs, so probable judgment is the indirect presumption of the agreement of two ideas, via a chain of intermediate ideas or proofs. In a demonstration, we immediately perceive the agreement of any two adjacent ideas in the chain; in probable reasoning, we immediately judge or presume the agreement of any two ideas in the chain.

This picture will not do. There is nothing in probable reasoning corresponding to intuition. In intuition, "each immediate *Idea*, each step has its visible and certain connexion; in belief not so" (E IV.xv.3: 655). The connection between ideas perceived by intuition is intrinsic to the nature of the ideas themselves. But that "which makes me believe, is something extraneous to the thing I believe." Locke's account of judgment and probable reasoning is supposed to *explain* how we judge things to be true; on the picture just sketched, it would presuppose that we can immediately judge or presume two ideas to agree. But such judgments are caused by something extraneous to the ideas, and probable reasoning is supposed to explain that.

Perhaps the clearest way to see that the picture of Locke's account of judgment just sketched is inaccurate is to realize that Locke does not think there is any such thing as immediate belief. All beliefs are the result of probable reasoning. We have already quoted extensively from E IV.xv.i: 654, where Locke describes probability as "nothing but the appearance of such an Agreement, or Disagreement, by the intervention of Proofs"; and the title of this section is "*Probability is the appearance of agreement upon fallible proofs.*" And again, later in Book IV, he compares "*Demonstration by reasoning*" to "*Judgment upon probable reasoning*" (E IV. xvii.16–17 [titles of paragraphs]: 683, 685), and describes the operation of judgment as follows:

There are other *Ideas*, whose agreement, or Disagreement, can no otherwise be judged of, but by the intervention of others, which have not a

certain Agreement with the Extremes, but an usual or likely one: And in these it is, that the *Judgment* is properly exercised. (E IV.xvii.16: 685)²⁴

Probable reasoning is always compared to demonstrative reasoning, and judgment always operates with intermediate ideas. All beliefs or opinions are produced in this way; there are no immediate beliefs. But if there is no immediate judgment, and no probable equivalent of intuition, just what is the relation between ideas that makes up the chain of ideas that constitutes a piece of probable reasoning? This turns out to be an extremely difficult question to answer. The brief answer is that the intermediate ideas are ideas of testimony or past experience that cause us to presume the agreement of the two ideas at each end of the chain. But before explaining this more fully, we first need to say more about judgment, belief, and assent.

Locke sometimes speaks of this judgment as assent: "The entertainment the Mind gives this sort of Propositions, is called *Belief, Assent, or Opinion*, which is the admitting or receiving any Proposition for true, without certain Knowledge that it is so" (E IV. xv.3: 655). And just as there are degrees of knowledge, viz., intuitive, demonstrative, and sensitive, so too there are degrees of assent "from full *Assurance* and Confidence, quite down to *Conjecture, Doubt, and Distrust*" (E IV.xv.2: 655). Indeed, Locke devotes a whole chapter of Book IV to the degrees of assent. So for Locke, assent is not an attitude we take toward various propositions, whereby sometimes we assent to something that we know, while at other times we assent to what we believe. Like "judgment," "assent" is a technical term for Locke. It is just another term for belief or opinion. According to Locke, believing or assenting to a proposition is a sort of pale imitation of knowing it, a presuming rather than a perceiving. Both knowledge and belief involve proposition formation; predication is a form of affirmation or denial.

²⁴ See also E IV.xvii.17: 685:

Intuitive Knowledge, is the perception of the certain Agreement, or Disagreement of two *Ideas* immediately compared together. *Rational Knowledge*, is the perception of the certain Agreement, or Disagreement of any two *Ideas*, by the intervention of one or more other *Ideas*.

Judgment, is the thinking or taking two *Ideas* to agree, or disagree, by the intervention of one or more *Ideas*, whose certain Agreement, or Disagreement with them it does not perceive, but hath observed to be frequent and usual.

Assent is not an attitude one takes toward a proposition already formed. So when Locke speaks of a self-evident proposition as something that one "assents to at first sight" (E IV.vii 2: 591), he is not saying that we believe or assent to something known; he is just saying that we come to know it.²⁵

An important aspect of Locke's denial of immediate judgment is the claim that all judgments are based on evidence or have grounds. But what is such evidence, and how does it function in the probable reasoning that produces beliefs? To understand Locke's position here, first consider the analogous question concerning knowledge. When we perceive the agreement of two ideas, we have knowledge, which is certain. What determines us to have this certainty Locke calls "evidence," as in "perceiving a demonstrative Evidence in the

²⁵ For Locke, knowledge does not evoke assent, where assent is belief. Knowledge is the perception of the agreement or disagreement of ideas, while belief or assent is the presumption of such agreement. Assent, for Locke, is not some further act or attitude one takes toward a perceived or presumed agreement or disagreement of ideas. Just as belief, the presumption or supposition of the agreement or disagreement of ideas, involves "taking to be true," so too does knowledge, which is the perception of such agreement. There is no need to posit a further act of assent. On Locke's account, belief or assent approximates to knowledge. Part of the trouble in understanding Locke is that in places he *does* speak as if assent were a separate act or attitude one takes toward a piece of knowledge. But this is hardly decisive. The vast majority of the occurrences of "assent" and its cognates in Book IV concern belief only, not an attitude one might take toward knowledge. Of the remaining occurrences, all but three occur in Chapter vii, "*Of maxims*," and in a moment I shall argue that there is a special reason why that should be so. Of the remaining three, one concerns maxims (E IV.xvii.14: 683) and one occurs at E IV.i.8: 528. That leaves only one occurrence, at E IV.xvii.19: 686, of the use of "assent" or its cognates as pertaining to knowledge as well as belief that comes after Locke's "official" account of "assent" in E IV.xiv-xv. And even there, the discussion makes it clear that the topic is as much about belief as about knowledge. Of the other occurrences in Book IV, all two concern maxims, and only one of those does not occur in E IV.vii, "*Of maxims*." Why is this significant? That chapter is Locke's account of the self-evidence of certain maxims and axioms, which "because they are *self-evident*, have been supposed innate" (E IV.vii.1: 591). Locke has owed his readers an account of self-evidentness ever since his discussion of innateness in Book I. Part of that debt was cleared when Locke talked about intuition in the early chapters of Book IV. But Locke returns to the issue here, with explicit reference to the innateness controversy. As much of that debate concerned "universal assent" (E I.ii.4: 49) and "immediate assent" (E I.ii.17: 56), it is not surprising that when Locke returns to that debate, he retains some of the original terminology. Almost everywhere else in Book IV, "assent" concerns only belief or judgment, not an attitude we take toward known propositions.

Proofs" (E IV.xiv.3: 653) and "intuitive Evidence, which infallibly determines the Understanding" (E IV.xv.5: 656). The evidence that determines us to perceive the agreement or disagreement of ideas is not some proposition, already known, from which we infer some other proposition. That would make nonsense of the notion of "intuitive evidence." Intuitive evidence is the intrinsic nature of the ideas in the chain that makes possible our perception of their agreement. Demonstrative evidence is the intrinsic nature of the ideas in the chain that allows us to perceive immediately the agreement of any two adjacent ideas, and to perceive indirectly the agreement between the two ideas at the end of the chain.

The case is similar with respect to probability and belief. The grounds of probability are what induces, causes, or makes²⁶ us presume two ideas to agree. The presumption of agreement is not due to the intrinsic nature of the ideas. Instead,

That which makes me believe, is something extraneous to the thing I believe; something not evidently joined on both sides to, and so not manifestly shewing the Agreement, or Disagreement of those *Ideas*, that are under consideration. (E IV.xv.3: 655)

The person who demonstratively knows that the internal angles of a right angle are equal to two right angles indirectly perceives that the two ideas agree, via the relevant intermediate ideas. What of the person who believes that equality because of the testimony of a reliable mathematician?

That which causes his Assent to this proposition, that the three Angles of a Triangle are equal to two right ones, that which makes him take these *Ideas* to agree, without knowing them to do so, is the wonted Veracity of the Speaker in other cases, or his supposed Veracity in this. (E IV.xv.1: 654)

Grounds of probability are what cause us to believe, and an instance of decisive grounds "carries so much evidence with it, that it naturally determines the Judgment, and leaves us as little liberty to believe, or disbelieve, as a Demonstration does, whether we will know, or be ignorant" (E IV.xvi.9: 663). The talk here is mainly

²⁶ "[T]hat which causes his Assent" (E IV.xv.1: 654); "[t]hat which makes me believe" (E IV.xv.3: 655); "some inducements to receive them for true" (E IV.xv.4: 655-6).

causal, but the ideas of “grounds” and “evidence” are also normative. And Locke intends them to be so, as is shown throughout Book IV. Consider the following passage:

[T]he Mind if it will proceed rationally, ought to examine all the grounds of Probability, and see how they make more or less, for or against any probable Proposition, before it assents to or dissents from it, and upon a due ballancing the whole, reject or receive it, with a more less firm assent, proportionably to the preponderancy of the greater grounds of Probability on one side or the other. (IV.xv.5: 656)

The grounds of probability are the circumstances that cause us to presume agreement. But they have normative force as well: the degree of assent ought to be proportional to the preponderancy of the greater grounds. Has Locke simply confused the normative with the psychological here? The situation is not as simple as that. In spite of the normative nature of his concerns, Locke is not much interested in the logical nature, considered in isolation from the faculty of judgment, of the evidential relationships between what we would now call the “evidence” for an empirical proposition, on the one hand; and the degree of “justification” a belief based on that evidence might have, on the other. Instead, he is concerned to explain what it is for our “understanding faculties” to function properly. Although we “ought to examine all the grounds of probability,” doing so is no guarantee that we will get things right. Right judgment, for Locke, is not a matter of judging according to some established rules, so that the belief produced by the judgment is justified even though it may be false. Right judgment is a matter of getting things right: if judgment “so unites, or separates them [ideas], as in Reality Things are, it is *right Judgment*” (E IV.xiv.4: 653). For Locke, the causal and evidential nature of the grounds of belief are inextricably linked.²⁷

²⁷ The situation is more complicated than these brief remarks might indicate. See Hatfield 1997, especially pp. 31–6. I suspect that a full understanding of Locke’s views on probability and belief cannot be achieved in isolation from an understanding of his views on sensitive knowledge. In each, there is the intimate connection between the relevant faculty, the characteristic activity of that faculty, and the result of that activity. In each, there is a lack of concern with modern questions about justification. And in each, testimony seems to play a crucial role. Locke is as happy to talk of the testimony of the senses as he is to speak of the testimony of other persons. Just as another’s testimony may cause us to presume that two ideas agree, so an item in the world may cause us to have an idea such that we perceive it as a sign of that item.

The grounds of probability, Locke asserts, are two: testimony, as we saw in the mathematics case, and “conformity of any thing with our own Knowledge, Observation, and Experience” (E IV.xv.4: 656). Locke thought conformity with “Knowledge, Observation and Experience” could provide grounds for belief or opinion in unobserved matters of fact and was careful to point out that this did not result in knowledge. Our past experience of objects grounds our beliefs about such unobserved objects. Suppose I perceive a body of water, with some fine colours and a bubble upon that water. A little later,

[B]eing now quite out of the sight both of the Water and Bubbles too, it is no more certainly known to me, that the Water doth now exist, than that the Bubbles or Colours therein do so; it being no more necessary that Water should exist to day, because it existed yesterday, than that the Colours or Bubbles exist to day because they existed yesterday, though it be exceedingly much more probable, because water hath been observed to continue long in Existence, but Bubbles, and the Colours on them quickly cease to be. (E IV.xi.11: 636–7)

Our beliefs about what is unobserved should conform to our past experience: it is more probable that the water exists now than that the bubbles still exist because water has been observed in the past to continue in existence longer than bubbles. The man who believes in the equality of the three angles of a triangle to two right angles on the basis of testimony reasons from the idea of the three angles to the idea of two right ones, and he reasons via the “fallible proof” (E IV.xv.1 (section title): 654) or “probable medium” (E IV.xvii.16: 685) of testimony. The person who believes that the water he saw a minute ago still exists reasons from the idea of water once existing to the idea of the same water still existing via the probable medium of conformity to past experience.

We have already argued against the view that considers Locke as holding that judgment binds together ideas in a chain of probable reasoning the way intuition binds together ideas in a demonstrative chain of ideas. Locke does not think there is any such thing as “immediate judgment”; such a judgment would result in a belief formed on no grounds whatsoever, a possibility Locke does not countenance. Judgment is our ability to presume that two ideas agree or disagree, but such a judgment, and the resulting belief, always has grounds (testimony or our own experience). And of

course, the account we are rejecting cannot be saved by suggesting that we can judge that any two adjacent ideas in the chain agree, on grounds of testimony or conformity to our own experience. For then between any two ideas in the chain, we would have to interpose a third, and our chain of ideas would become infinite.

If a chain of probable reasoning results in a belief, we judge, rather than perceive, that the first idea suitably agrees with the last. We make this judgment because we take each idea in the chain to be suitably related to its adjacent idea. This agreement is not perceived, for then the chain would constitute a piece of demonstrative reasoning. But our awareness or "presumption" of the first idea being related to the last still must depend on our awareness of each idea in the chain being related to its neighbour, and we need some account of this latter awareness. On the present account, we cannot call it judgment, because that is limited to a more complex operation that requires intermediate ideas, and we are here looking to explain immediate awareness. Worse, this immediate awareness cannot be grounded in testimony or experience, as that grounding is explained via the intervention of intermediate ideas. We seem to need the probable equivalent of intuition to explain why each idea in the chain is held to agree with its neighbour, and on the present account it is not clear that such an equivalent is even possible, at least if it is to involve testimony or experience.

We need to remember the extrinsic nature of probability judgments, in contrast to the intrinsic nature of knowledge claims:

And herein lies the *difference between Probability and Certainty, Faith and Knowledge*, that in all parts of Knowledge, there is intuition; each immediate *Idea*, each step has its visible and certain connexion; in belief not so. That which makes me believe, is something extraneous to the thing I believe; something not evidently joined on both sides to, and so not manifestly shewing the Agreement, or Disagreement of those *Ideas*, that are under consideration. (E IV.xv.3: 655)

Locke, as we have seen, speaks in causal language of the external source of the link between ideas in judgment:

So that which causes his Assent to this Proposition, that the three Angles of a Triangle are equal to two right ones, that which make him take these

Ideas to agree, without knowing them to do so, is the wonted Veracity of the Speaker in other cases, or his supposed Veracity in this. (E IV.xv.1: 654)

The grounds of probability are extraneous to the ideas presumed to be related. I might judge the proposition "The three angles of a triangle are equal to two right ones" to be true (i.e., presume the two ideas to be suitably related) *because* someone told me so. Here the idea of the speaker's veracity is functioning as a proof or intermediate idea, but in a manner rather different from the way intermediate ideas function in demonstrative reasoning. In demonstrative reasoning, each idea is intuitively perceived to agree with its neighbour. In probable reasoning, intermediate ideas cause the mind to presume agreement of the two ideas between which the intermediate idea stands. In demonstrative reasoning, there is an intrinsic connection between any two ideas in the chain; in probable reasoning, there is an extrinsic connection between the two ideas at the extremes, caused by the intermediate ideas. So I might judge that there are currently people existing, and the grounds for this judgment might be past experience. The idea of the relevant past experience acts as a sort of causal glue that enables us to presume the ideas to agree. This possibility accords well with Locke's claim that we judge not just out of necessity, when no demonstration is to be had, but "sometimes out of Laziness, Unskilfulness, or Haste." (E IV.xiv.3: 653) When we are inclined to presume ideas to agree, we may not bother to look for the demonstrative intermediate ideas that would enable us to perceive their intrinsic agreement.

On this interpretation, proofs are that which binds two ideas together. In demonstrative reasoning, such proofs are intermediate ideas such that each idea can be intuitively perceived as agreeing or disagreeing with its neighbour. In probable reasoning, such proofs are ideas of actual experience we have had or testimony we have received that cause us to presume a connection between the two ideas at the ends of the chain.²⁸

²⁸ Probable reasoning, like demonstrative reasoning, may consist of several ideas or proofs causing us to presume an agreement between the ideas at the extremes. A particularly clear example occurs at E IV.xvii.4: 672:

Tell a Country Gentlewoman, that the Wind is South-West, and the Weather louring, and like to rain, and she will easily understand, 'tis not safe for her to go

Grounds of probability can cause us to presume relations between ideas without perceiving their intrinsic connection, if any. Furthermore, we are supposed to consider all sorts of conflicting evidence and come up with a balanced judgment. By what mechanism does this occur? In the end, I do not think Locke has the resources to answer this question. Let us reconsider a passage of Locke's already cited:

[T]he Mind if it will proceed rationally, ought to examine all the grounds of Probability, and see how they make more or less, for or against, any probable Proposition, before it assents to or dissents from it, and upon a due ballancing the whole, reject, or receive it, with a more or less firm assent, proportionably to the preponderancy of the greater grounds of Probability on one side or the other. (E IV.xv.5: 656)

The idea seems to be that, although some propositions may have all the evidence in their favour, for most propositions not known, there will be experience and testimony for and against. The crucial ingredient seems to be the "degree of conformity with what is usually observed to happen." So if a man in England tells me he saw someone walk upon ice, "this has so great conformity with what is usually observed to happen, that I am disposed by the nature of the thing it self to assent to it." Since, in this case, there appear to be few grounds for denying the proposition, we judge it to be true. But if the same man says the same thing to the "King of *Siam*," there is little conformity with what the king has observed, and he may well not believe the proposition, but judge the man to be a liar.

It is difficult to assess just how we are to evaluate the probability of propositions on conflicting evidence. Any question of weighing evidence appears to be a matter of allowing one bit of evidence to function as grounds for or against taking two ideas to be related, another bit of evidence to function as grounds for another judgment,

abroad thin clad, in such a day, after a fever: she clearly sees the probable Connexion of all those, *viz.* South-West-Wind, and Clouds, Rain, wetting, taking cold, Relapse, and danger of death, without tying them together in those artificial and cumbersome Fetters of several Syllogisms, that clog and hinder the Mind. . . .

The point is that this piece of probable reasoning is better understood by the reasoner if it is laid out as a chain of ideas, and not forced into syllogistic mold. A similar example with respect to demonstrative reasoning is given at E IV.xvii.4: 672-3.

and so on. When all the grounds are exhausted, the winner is somehow supposed to emerge. One bit of evidence inclines us to presume one way; another bit of evidence inclines us to presume another way. Locke thinks that when the evidence is overwhelmingly one way, "it naturally determines the Judgment, and leaves us as little liberty to believe, or disbelieve, as a Demonstration does, whether we will know, or be ignorant" (E IV.xvi.9: 663). The difficulty comes when the evidence is mixed. But even here, if the evidence is functioning causally, will we not presume whichever way the evidence is stronger? The answer to this is yes, but it does not follow that the beliefs we have are entirely arbitrary. We do not know, based on some calculation, just what degree of assent is due a proposition for which there is contradictory evidence; but if we pay attention to all the evidence, and let it weigh with us, the belief we eventually form will reflect the variety of evidence and its force. Probability is the appearance or presumption of the agreement of ideas; it is not knowledge that there is some specific likelihood that a belief we have may be true.²⁹

²⁹ See, for instance, E IV.xvi.9: 663:

These [testimony and past experience] are liable to so great variety of contrary Observations, Circumstances, Reports, different Qualifications, Tempers, Designs, Over-sights, *etc.* of the Reporters, that 'tis impossible to reduce to precise Rules, the various degrees wherein Men give their Assent. This only may be said in general, That as the Arguments and Proofs, *pro* and *con*, upon due Examination, nicely weighing every particular Circumstance, shall to any one appear, upon the whole matter, in greater or less degree, to preponderate on either side, so they are fitted to produce in the Mind such different Entertainment, as we call *Belief, Conjecture, Guess, Wavering, Distrust, Disbelief, etc.*

There is no knowledge of the appropriate degree of assent; it just emerges as the evidence is duly considered. I thus find myself in disagreement, in some respects, with Wolterstorff over the interpretation of Locke on probability. For instance, he says of Locke: "My believing the proposition, upon 'perceiving' the fact, *that P is highly probable on this evidence*, is certain; my believing the proposition P itself is merely probable" (Wolterstorff 1996: 89). Wolterstorff thinks that Locke's theory holds that we *know* how probable P is, given the evidence, though we do not know P. I do not think this is true of Locke. Suppose that P is the proposition "A is B." Then to judge that P is true is to presume that A stands in some relation to B, a relation such that if it were perceived would result in knowledge that A is B. If we *know* that some evidence gives high probability to P, then we would have to perceive the agreement between the idea of the evidence and the idea of P's being true. But what is this agreement, and how do we perceive it? On my view, the evidence or grounds of our judgment that P is whatever it is that causes us to

Some evidence that this is the correct interpretation comes in Locke's discussion of "Wrong Assent, or Error" in E IV.xx. Error seems to result mainly from a lack of proofs, or the lack of the ability or will to use them. Not having such proofs, or failing to consider the evidence they provide (i.e., failing to allow the idea of such evidence to incline one to presume agreement or disagreement) will result in a judgment not based on all the evidence available. On this conception, beliefs finally arrived at are in some sense both voluntary and involuntary, and yet this is a consistent view.³⁰ They are in a way involuntary because, once the various proofs have been taken into account, that is to say, once all the available evidence has been considered, the final judgment emerges independently of one's will:

But that a Man should afford his Assent to that side, on which the less Probability appears to him, seems to me utterly impracticable, and as impossible, as it is to believe the same thing probable and improbable at the same time. (E IV.xx.15: 716)

But they are, in a way, voluntary, as well. A person can refuse to consider evidence for whatever reason: lack of interest or inclination, or even laziness (see E IV.xx.6: 710). Or it may require effort to get at the proofs, effort that the greater part of mankind may not be able to afford:

And in this State are the greatest part of Mankind, who are given up to Labour, and enslaved to the Necessity of their mean Condition; whose Lives are worn out, only in the Provisions for Living. These Men's Opportunity of Knowledge and Enquiry, are commonly as narrow as their Fortunes; and their Understandings are but little instructed, when all their whole Time and Pains is laid out, to still the Croaking of their own Bellies, or the Cries of their Children. 'Tis not to be expected, that a Man, who drudges on, all his Life, in a laborious Trade, should be more knowing in the variety of things done in the World, than a Pack-horse, who is driven constantly forwards and backwards, in a narrow Lane, and dirty Road, only to Market, should be skilled in the Geography of the Country. (E IV.xx.2: 707)

presume that the relevant relation between A and B holds, where the relation is such that if we did perceive it, we would know that P, i.e., know that A is B.

³⁰ Here I side with Ayers 1991 over Passmore 1986 on the issue of Locke and the voluntariness of belief.

Locke clearly has a lot of sympathy with the plight of such people, much more than with he who would refuse to consider certain evidence simply because it goes against his own interest or preconceived opinion.³¹ Nonetheless, Locke is convinced that:

GOD has furnished Men with Faculties sufficient to direct them in the Way they should take, if they will but seriously employ them that Way, when their ordinary Vocations allow them the Leisure. (E IV.xx.3: 708)

4. CONCLUSION

Locke had extraordinary and important views on judgment, both in the broad sense and in his narrower technical sense. In the broad sense, he had a carefully worked out view about the nature of propositions, and how the mind forms them out of ideas. Although his identification of proposition formation with the perception or presumption of the agreement or disagreement of ideas seems antiquated to us, and leaves Locke with serious problems, it is important for an overall understanding of Locke. In particular, it is important for understanding his views on knowledge and judgment, in the narrow sense.

Locke thought that our knowledge is very limited. Intuitive and demonstrative knowledge cannot be extended to our knowledge of the physical world. Sensitive knowledge is limited to current sense

³¹ There is also the matter of lacking the skill or ability to use the proofs one has. Locke says:

Those who *want skill to use those Evidences they have* of Probabilities; who cannot carry a train of Consequences in their Heads, nor weigh exactly the preponderancy of contrary Proofs and Testimonies, making every Circumstance its due allowance, may be easily misled to assent to Positions that are not probable. (E IV.xx.5: 709)

This seems to be a case of the faculty of reason not functioning correctly. The proofs, which would ordinarily incline one toward the appropriate presumption of the agreement of ideas, do not have their ordinary causal upshot. Locke does not seem very interested in how or why this might happen. He says:

Which great difference in Men's Intellectuals, whether it rises from any defect in the Organs of the Body, particularly adapted to Thinking; or in the dulness or untractableness of those Faculties, for want of use; or, as some think, in the natural differences of Men's Souls themselves; or some, or all of these together, it matters not here to examine. (E IV.xx.5: 709)

experience. Furthermore, it is limited to particulars. Through memory, such knowledge can be extended into the past. But when we consider our cognitive awareness of general truths about the world, or of matters of fact that we have never observed or have yet to occur, we need to rely on judgment and belief formation, not knowledge. Judgment extends sensitive knowledge, in much the same way that demonstration extends intuition. The analogy is not exact. Demonstration is a series of intuitions, and results in knowledge; Judgment is not a series of sense perceptions, and results in belief, not knowledge. Although both intuitive and sensitive knowledge are immediate and noninferential, there is no immediate belief. All belief or opinion is the product of probable reasoning.

Although there are these disanalogies between knowledge and belief, we need to understand Locke on knowledge if we are to understand what he says about judgment and belief. Knowledge is the perception of the agreement or disagreement of ideas, and such a perception contributes both to the act of knowing and to the proposition known. Belief is the presumption of the agreement or disagreement of ideas, and such a presumption contributes both to the act of assent and to the proposition believed. Assenting to a proposition just is believing it. Assent or belief is not some further act directed toward a proposition known or believed. Knowing a proposition is one thing, assenting to or believing a proposition is another. Believing or assenting is sort of a watered-down version of knowing. We can even believe a proposition – that is, presume agreement between ideas – when it would be perfectly possible, with a little effort, to perceive the agreement and hence to achieve knowledge.

Locke thinks that the production of belief is causal. Evidence, whether based on past experience or on testimony, causes the presumption of the agreement or disagreement of ideas. Belief is formed by the preponderance of the evidence. Belief formation is normative as well as causal, though Locke is very sketchy on the details. Although it is rational, according to Locke, to take as much evidence into account as possible, his notion of “right judgment” is judgment that gets things right. Judgments formed on the basis of all the relevant evidence may still be wrong judgments.

Locke's account of judgment, in both the wide and narrow senses, may seem naïve by modern standards. Nonetheless, it is of the greatest importance. Locke was one of the first philosophers of the early modern period to realize the importance of supplementing knowledge with belief. Furthermore, he held that belief could meet standards of rationality, and was produced by probable reasoning. In fact, in his account of sensitive knowledge, probable reasoning, and belief, we can see the emergence of the modern account of empirical knowledge. This is a remarkable achievement.