

Understanding and Testimony

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Can understanding be transmitted by testimony, in the same sense that propositional knowledge can be transmitted by testimony? Some contemporary philosophers – call them *testimonial understanding pessimists* – say No, and others – call them *testimonial understanding optimists* – say Yes. In this chapter I will articulate testimonial understanding pessimism (§1) and consider some arguments for it (§2).

A familiar theme in social epistemology is the individualism of pre-social epistemologists, and in particular of Modern philosophers, who are accused of valorizing the absurd idea of the intellectually autonomous knower. Contemporary epistemology, it is thought, does not make this mistake. Testimonial understanding pessimists, however, do maintain that *understanding* requires intellectual autonomy, in as much as it cannot be transmitted by testimony. The ideal of the intellectually autonomous knower may be dead, but the ideal of the intellectually autonomous understander is alive and well.

1 Testimonial understanding pessimism

Testimonial understanding pessimism says that understanding cannot be transmitted by testimony in the same sense that propositional knowledge can be transmitted by testimony. This deserves to be thought of as the standard or traditional view in epistemology. Plato suggests that *ἐπιστήμη*, which many translate with “understanding,” cannot be transmitted by testimony¹, and defenses of testimonial understanding optimism have appeared² in response to the appearance of an emerging pessimist consensus.³

The question of testimonial understanding pessimism is thought to have important implications for several other philosophical issues, including whether understanding is a species of propositional knowledge⁴, whether there is something wrong with moral and aesthetic testimony⁵, the value of intellectual autonomy⁶, and the prospects for moral cognitivism.⁷ However, we will set aside cases of moral and aesthetic understanding here – along with cases of religious and mathematical understanding – which raise additional questions not relevant to our general and independent assessment of testimonial understanding pessimism.

Understanding at least appears to be a genus with several species. There is *explanatory understanding*, as when you understand why the building collapsed, why carbon dioxide emissions cause the temperature to rise, or why Grant won at Vicksburg. But there also seem to be several species of *objectual*

¹ *Theaetetus* 201b-c.

² Sliwa 2015, Boyd 2017, Hazlett 2018, pp. 143-5, forthcoming, Green 2019, Grimm 2020; cf. Barnes 1987, p. 203, Malfatti 2019.

³ Zagzebski 2008, pp. 145-6, 2012, pp. 174-8, Hills 2009, 2016, forthcoming, Gordon 2017; cf. Grimm 2006, pp. 531-2, 2011, pp. 86-7, 2014, pp. 335-6, Pritchard 2014, p. 320; cf. Burnyeat 1980, pp. 186-7, 1987, pp. 6-8, Nehamas 1985, pp. 26-9, Pritchard 2010, pp. 80-3, Carter and Pritchard 2015, pp. 189-90.

⁴ Zagzebski 2008, pp. 145-6, Sliwa 2015; cf. Pritchard 2010, pp. 80-3, Pritchard 2014, p. 316.

⁵ Nickel 2001, Hills 2009, forthcoming, Hopkins 2007, 2011, Zagzebski 2012, pp. 174-8, Sliwa 2012, pp. 192-3, Lillehammer 2014, Crisp 2014, pp. 131-6, Enoch 2014, pp. 246-51, Hazlett 2017, pp. 51-4, McShane 2018, Callahan 2018, McGrath 2019, pp. 88-98.

⁶ Zagzebski 2007.

⁷ Nickel 2001, p. 254, McGrath 2009, 2011, Hills 2015.

understanding, as when you understand New York City, combustion, organic chemistry, your best friend, Parliamentary procedure, Hinduism, or White settler colonialism. With explanatory understanding, the object of understanding seems to be why something is the case – its cause or source or explanation; with objectual understanding, the object of understanding seems to be the thing itself – some object, event, process, person, or theory. *Phenomenological understanding* – as when you understand what it’s like to be pregnant, or what paw paw fruit tastes like, or how it feels to be bitten by a teething baby – and *semantic understanding* – as when you understand what “gingerbread” means, or what someone just said, or the definition of “herd immunity” – seem like two more species. And there remain cases of understanding that do not obviously belong to any of these species, like understanding the significance of the Stonewall riots or the meaning of Shelly’s “Ozymandias,” and surely there are many more such hard-to-classify cases.

Propositional knowledge – as when you know that the Spurs won the 2003 NBA Championship, that Mars is known as the Red Planet, or that the faculty meeting has been canceled – is the most famous target of contemporary epistemological analysis. The nature, scope, and properties of propositional knowledge are all controversial. Also controversial is the relationship between propositional knowledge and what seem like other species of knowledge, such as *practical knowledge*, as when you know how to make an omelet, how to get to Larissa, or how to speak Persian; *objectual knowledge*, as when you know Madrid, or football, or some minor celebrity; and *phenomenological knowledge*, as when you know what it’s like to lose everything, or what the trombone sounds like, or the feeling of elation. Indeed, there seem to be as many apparent species of knowledge as there are apparent species of understanding.

Epistemologists sometimes carve up their conceptual landscape linguistically, associating different species of knowledge or understanding by reference to particular words or forms of words. You are probably familiar with the controversy about whether “knowledge how” (i.e. practical knowledge) can be reduced to “knowledge that” (i.e. propositional knowledge). But this can be a misleading way of proceeding. The words “knows how” show up just as much when we say that someone *knows how* turbines generate electricity as when we say that someone *knows how* to play cricket. But only the latter is a case of practical knowledge.⁸ Someone who knows their way around Edinburgh surely enjoys practical knowledge, and we don’t need “how” to say so. And “that” isn’t always used when we talk about propositional knowledge – knowing how many coins are in your pocket, knowing the 12th U.S. President, and knowing where you left your phone all seem like cases of propositional knowledge.

In light of this, note that the distinction between explanatory and objectual understanding may be more of a linguistic distinction than one indicating a genuine division of species of understanding.⁹ The distinction is clear enough when we say that we are distinguishing between “understanding why p” and “understanding x” – at least if “why p” is not the sort of a thing that can be substituted for “x.” But is there any difference between understanding why the Comanche dominated the Great Plains and understanding the Comanche dominance of the Great Plains?¹⁰ Or, indeed, between either of these and understanding how the Comanche dominated the Great Plains? It is hard to imagine someone admitting

⁸ Cf. Cath, “Social Epistemology and Knowing-How,” this volume. In general, it is wrong to associate the word “how” with practical rather than theoretical knowledge or understanding (*pace* Kvanvig 2003, p. 190, 2009, p. 96).

⁹ Cf. Grimm 2011, p. 88.

¹⁰ Cf. Kvanvig 2003, pp. 197-8.

that, although they understand the Comanche dominance of the Great Plains, they do not understand why or how the Comanche dominated the Great Plains, and vice versa. Even when it seems like we can establish some conceptual space here, there turns out not to be much of it. You might understand how the Comanche were able to dominate, by grasping the means by which they held power, and, thus, understand their dominance, but not understand why they dominated, in the sense of not knowing their reason or motive for seeking dominance in the first place. However, in that case, your understanding of their dominance would be only partial – you would understand their dominance to some extent, but you would not understand their dominance full well. Even in this case, there is a connection between explanatory understanding and objectual understanding: when you understand why some event occurred, you more fully understand the event.

Note that I didn't include "propositional understanding" on my list of apparent species of understanding. This needs to be included if one carves up the conceptual landscape linguistically – "understanding that p" is a common form of words, as when you understand that the flight has been delayed, or that helium is lighter than air, or that a decision has been made. But these are clearly just cases of propositional knowledge, and hardly comprise a distinctive epistemological species. Similarly, "understanding how to φ " is a common form of words, as when you understand how to cook a steak, or how to tie a clove hitch, or how to steal without getting caught, but it is clearly used to refer to instances of practical knowledge.

Many epistemologists argue that understanding requires a "grasp" of explanatory structure – relations of dependence or coherence, necessary connections, or causal relationships.¹¹ This is plausible when it comes to explanatory understanding, but also when it comes to many cases of objectual understanding. Understanding photosynthesis, the Vietnam War, or macroeconomics plausibly involve a grasp of explanatory structure just as much as understanding why plants absorb carbon dioxide, why Saigon fell, or why the unemployment rate is falling. In this chapter, I am going to focus on explanatory understanding and objectual understanding, and assume that these require a grasp of explanatory connections.

Testimonial understanding pessimism is a comparative claim: it says that understanding cannot be transmitted by testimony *in the same way* that propositional knowledge can be transmitted by testimony. Both testimonial understanding pessimism and testimonial understanding optimism presuppose that propositional knowledge can be transmitted by testimony in some way. The question is whether understanding can also be transmitted by testimony in that way. To put that another way, the question is whether there is some *asymmetry* between testimonial understanding and testimonial knowledge – and, of course, if there is such an asymmetry, why is there?¹² However, for simplicity we can just say that our question is whether understanding can be transmitted by testimony (with the following understood: in the same way that propositional knowledge can be transmitted by testimony) or whether testimonial understanding is possible (with the following understood: in the same way that testimonial propositional knowledge is possible).

¹¹ Moravcsik 1979, p. 207, Nehamas 1985, p. 28, Zagzebski 2001, p. 242, 2012, pp. 174-5, Kvanvig 2003, p. 192, 2009, Grimm 2006, p. 532, 2011, pp. 88-90, 2014, Strevens 2013, Hills 2016, forthcoming, Hazlett 2018.

¹² I assume that testimonial understanding is understanding transmitted by testimony. In so doing, I bracket questions about whether testimonial exchanges can *generate* knowledge (or understanding).

Note that the contrast here is with *propositional* knowledge. With other apparent species of knowledge, it is unclear whether testimonial knowledge is possible. If you know Paris, can you transmit your knowledge to me? What about your knowledge of what tobacco smells like? If you know how Turkish politics works, can you transmit your knowledge to me? The question of whether practical knowledge can be transmitted by testimony is a topic of current controversy, and that debates covers a lot of the same ground as the debate about whether understanding can be transmitted by testimony.¹³ What we assume is obviously transmissible by testimony – at least in many cases – is propositional knowledge – even though the nature of *propositional* knowledge, as against other species, is not obvious (cf. §2.3).

Indeed, in many cases, there is no apparent asymmetry between testimonial understanding and testimonial knowledge. Testimonially knowing what tobacco smells like or testimonially knowing how Turkish politics works seem no more and no less hard to imagine than testimonially understanding what tobacco smells like or testimonially understanding how Turkish politics works. In fact, in cases like these, as in the case of “propositional understanding,” the distinction between understanding and knowledge, about which such a big deal has been made, seems to break down. Is there really a difference between knowing what tobacco smells like and understanding what tobacco smells like or between knowing how Turkish politics works and understanding how Turkish politics works? It is again instructive to try to imagine someone claiming knowledge but admitting a lack of understanding, or vice versa, in these cases. Much is sometimes made of the alleged difference between understanding why p and knowing why p.¹⁴ But can we really imagine someone understanding why p without knowing why p, or knowing why p without understanding why p?¹⁵ The argument that is given here involves an unlovely mash-up of philosophical methods. We are presented with a subject who allegedly knows why p but does not understand why p. The premise that the subject does not understand why p is based on philosophical intuition. However, the premise that the subject knows why p is based on an epistemological theory of explanatory knowledge, according to which knowing why p is equivalent to knowing that p because q.¹⁶ We should either consult intuition alone, attempting to describe a case in which a subject intuitively knows why p and yet intuitively does not understand why p, or else consult theory alone, looking both at the best theory of explanatory knowledge and at the best theory of explanatory understanding. Consider a case¹⁷: someone who knows that the house burned down because of faulty wiring but has no grasp of the connection between faulty wiring and a house catching fire, no idea how faulty wiring could cause a fire. Does this person know why the house burned down without understanding why the house burned down? Would they describe themselves as knowing why the house burned down, but not understanding why it burned down?¹⁸ There is clearly a *sense* in which they know why the house burned down – they know it was faulty wiring that caused the fire – but isn’t there also a *sense* in which they understand why the house

¹³ Hawley 2010, Carter and Pritchard 2015, Poston 2016, Cath 2017, “The Social Epistemology of Knowing-How,” this volume, Carter and Poston 2018, Peet 2019, Grimm 2020; cf. Burnyeat 1987, pp. 13-15, Buckwalter and Turri 2014,

¹⁴ See, e.g., Pritchard 2010, Chapter 4, Hills 2016.

¹⁵ Cf. Sliwa 2015, pp. 60-1.

¹⁶ That explanatory knowledge is a species of propositional knowledge is motivated, at least in part, by the idea that “knowledge-wh” ascriptions are ascriptions of propositional knowledge, which is an orthodox assumption in the theory of “knowledge-wh” attributions shared by rival theorists (see e.g. Stanley and Williamson 2001, pp. 417-22, Schaffer 2007, Brogaard 2009).

¹⁷ Pritchard 2010, p. 81.

¹⁸ Alison Hills (2016) says that “sentences [of the form] “you know why p but you don’t understand why p” sound perfectly natural to most people.” (p. 669) It would be interesting to test that hypothesis.

burned down? Again, there may be *theories* of explanatory knowledge and explanatory understanding on which this person both knows why the house burned down and does not understand why the house burned down. But at the level of pre-theoretical intuition, it would be equally natural for such a person to say “I know that faulty wiring was the cause, but I don’t really know why the house burned down, since I can’t make sense of how faulty wiring could cause a fire”¹⁹ as it would be for them to say “I understand why the house burned down – faulty wiring – but I don’t really get how the fire started, since I can’t make sense of how faulty wiring could cause a fire.”

So, testimonial understanding pessimism says that understanding cannot be transmitted by testimony in the same sense that propositional knowledge can be transmitted by testimony. We should keep in mind that some species of knowledge apparently cannot be transmitted by testimony. And, while there seem to be several species of understanding, I will focus here on explanatory and objectual understanding.

2 Arguments for testimonial understanding pessimism

Let us consider some arguments for testimonial understanding pessimism.

2.1 Understanding is an achievement

Some philosophers suggest that understanding, unlike propositional knowledge, is an intellectual achievement – and that this explains why testimonial understanding is impossible.²⁰ Consider this reconstruction:

1. Understanding is an intellectual achievement.
2. Nothing testimonial is an intellectual achievement.
3. Therefore, understanding cannot be testimonial.

Assuming that propositional knowledge is not an intellectual achievement, we have the asymmetry we seek.

Critics of testimonial understanding pessimism challenge both premises of this argument. Some argue that understanding is not always an intellectual achievement, i.e. that there are cases of “easy understanding.”²¹ Imagine that you come home and discover that your dog has once again chewed up your pillow – there is the pillow, all in tatters, and there is the dog, nibbling on a scrap of it. You now understand why the pillow is destroyed. But there is no intellectual achievement here – it’s just obvious to you why the pillow is destroyed. It takes no effort and there are no obstacles to overcome; you understand instantaneously and, as we might say, without even thinking about it. Thus, premise (1) is false.

Others argue that testimonial propositional knowledge is at least sometimes an intellectual achievement.²² To begin, note that knowing is always something you do for yourself, even if cases of testimonial

¹⁹ If this means the aforementioned account of explanatory knowledge is wrong, so much the worse for it (cf. Kvanvig 2009 pp. 100-1, Grimm 2011, p. 87).

²⁰ Pritchard 2010, pp. 80-3; cf. Zagzebski 2008, p. 146; see also Watson, “What Social Epistemology Can and Should Be Learning from Education Theory,” this volume.

²¹ Boyd 2017; cf. Grimm 2020, pp. 130-2.

²² Boyd 2017, pp. 117-8, Hazlett forthcoming, §2.3; cf. Grimm 2014, pp. 336-8, Grimm 2020, pp. 133-5.

propositional knowledge: when you know that p on the basis of someone's telling you that p, which is distinctive of testimonial propositional knowledge, it is still you who knows that p. No one can believe that p "for you." So, the fact that no one can understand why p "for you" does not represent a disparity with propositional knowledge. Moreover, coming to know that p on the basis of someone's telling you that p requires at least three things, which in many cases require significant intellectual labor on the part of the knower. Samuel Johnson is said to have maintained that knowledge "is of two kinds. We know a subject ourselves, or we know where we can find information upon it." The latter, however, is no mean feat. First, the testimonial knower must form the belief that p, which requires deploying the concepts required to grasp the proposition that p. This is not easy when the relevant proposition is conceptually complex. A familiar feature for laypeople in their engagement with expert testimony is the struggle to understand what experts are saying. And the overestimation of our ability to understand expert testimony has become an increasingly worrisome pathology of contemporary intellectual life, with its ever-increasing divisions of intellectual labor, whereby contemporary subjects take themselves to have access to vast troves of information via the internet. Believing conceptually complex propositions can itself involve significant intellectual labor.²³ Second, the testimonial knower must interpret the speaker as telling them that p. Ambiguity, vagueness, malapropism, matters of presupposition and implication, and matters of accent, dialect, and idiolect can all contribute to make this difficult, and the successful hearer will often need to manifest creativity and charity, and bring to bear significant background knowledge about the context and circumstances, in working out what someone has told them. And this can involve significant intellectual labor. Third, the testimonial knower must do what is required of them to assess the speaker's credibility – consisting of their reliability (how likely they are to believe the truth about whether p) and their sincerity (how likely they are to say what they believe). Now, just what is required of testimonial knowers in this regard is a matter of controversy in the epistemology of testimony. But everyone agrees that *something* is required. On the more liberal side, some would require merely that the testimonial knower monitor the speaker for signs of unreliability or insincerity – by scrutinizing the circumstances, manner, and content of their utterance. On the more conservative side, others require in addition that the testimonial knower positively establish the credibility of the speaker prior to believing on their say-so. But, in any event, such credibility assessment can involve significant intellectual labor. Thus, premise (2) is false.

These challenges are related. What the defender of the present argument must show is that understanding is (always) an intellectual achievement *in the same sense* that nothing testimonial is (ever) an intellectual achievement. Given that propositional knowledge is our paradigm of something that can be testimonial, they must identify an asymmetry between the intellectual labor required for understanding and the intellectual labor required for testimonial propositional knowledge. However, it is unclear that this can be done without either making the requirements for understanding too demanding or making the requirements for testimonial propositional knowledge too lax.

2.2 Understanding requires a sense of understanding

Understanding is associated with a distinctive phenomenology, the *sense of understanding*, exemplified by the feeling we get when we make sense of something.²⁴ We are familiar with what it's like to come to

²³ N.b. the distinction between believing that p and believing that the sentence "p" is true.

²⁴ For further discussion, see Zagzebski 2001, pp. 245-7, Trout 2002, Grimm 2009.

understand something puzzling for the first time – the “a-ha!” moment, when everything “clicks” or “fits together.” Consider, then, an argument:

1. Understanding requires a sense of understanding.
2. Phenomenological states, including the sense of understanding, cannot be transmitted by testimony.²⁵
3. Therefore, understanding cannot be transmitted by testimony.

Assuming propositional knowledge requires no phenomenological state, we have the asymmetry we seek.

However, the argument is invalid. In general, that something required by *A* cannot be transmitted by testimony does not entail that *A* cannot be transmitted by testimony. One kind of counterexample involves *preconditions*: propositional knowledge requires possessing the concepts needed to grasp the relevant proposition (cf. §2.1), and concept possession is not something that can be transmitted by testimony, but that does not mean that propositional knowledge cannot be transmitted by testimony. Another kind of counterexample involves *consequences*: propositional requires the ability to infer propositions transparently entailed by the proposition known, and such an ability cannot be transmitted by testimony, but that does not mean that propositional knowledge cannot be transmitted by testimony.

When understanding involves a sense of understanding, the sense of understanding is more plausibly understood as a consequence of understanding than as a constituent of it. Imagine that you pull out of your driveway in your old car and there is something wrong: the acceleration is awkward, lurching; the engine is straining and unresponsive. Suddenly, you realize, with an “a-ha!,” that the parking brake is still on. It seems plausible here that your coming to understand why your car wasn’t accelerating explains your sense of understanding – that your sense of understanding was the result of your having come to understand. Compare other good feelings that are consequences of intellectual achievement. The satisfaction at having solved a puzzle is the result of your having solved the puzzle; the joy of scientific discovery is the result of having made the discovery; the pleasure of learning something interesting is the result of having learned.

In light of this, premise (1) is implausible. In general, cases of easy understanding (§2.1) will not involve the sense of understanding. The sense of understanding is plausibly the result of coming to understand something difficult or puzzling, of overcoming some obstacle or challenge, of concluding a course of inquiry. In general, however, understanding requires none of these things.²⁶

2.3 Understanding requires certain intellectual abilities

Many epistemologists argue that understanding requires a suite of intellectual abilities, including the ability to give and follow explanations or to provide theoretical accounts, the ability to draw conclusions about similar cases, and the ability to answer explanatory and modal questions.²⁷ And, some of these

²⁵ Cf. McGrath 2009, pp. 321-22, 2011, pp. 116-23, Fletcher 2016, Hills forthcoming, §5.

²⁶ Compare a theme in Wittgenstein’s *Philosophical Investigations* (1958): that understanding is not a feeling or inner process (see e.g. §154, §321, §396).

²⁷ Zagzebski 2001, p. 241, 2008, p. 143-4, Kvanvig 2003, p. 197-8, Grimm 2006, pp. 532-3, 2011, p. 89, 2014, p. 339, 2020, pp. 126-8, Hills 2009, pp. 102-3, 2016, pp. 663-8, forthcoming, Boyd 2017, pp. 113-5; cf. Nehamas 1085, pp. 28-9.

epistemologists argue, abilities cannot be transmitted by testimony.²⁸ However, we are not interested in whether having these intellectual abilities is merely a precondition or a consequence of understanding (§2.2). To validly infer that understanding cannot be transmitted by testimony, our first premise needs to be that understanding is a species of intellectual ability, in the sense that understanding is at least partially constituted by certain intellectual abilities. We could then argue like this:

1. Understanding is a species of intellectual ability.
2. Abilities cannot be transmitted by testimony.
3. Therefore, understanding cannot be transmitted by testimony.

Assuming propositional knowledge is not a species of ability, we have the asymmetry we seek.²⁹

Let's grant premise (2) for the sake of argument. Some testimonial understanding pessimists do say that understanding is a species of ability. Linda Zagzebski (2001) writes that "understanding is a state gained by learning an art or skill, a *techne*" (p. 241), Jon Kvanvig (2003) writes that "an ability [to answer questions about something] is surely constitutive of understanding," (p. 198) and Stephen Grimm (2020) writes that "[u]nderstanding is an ability." (p. 128, see also Grimm 2011, p. 89)³⁰ However, this is implausible. Although it is plausible that understanding requires certain intellectual abilities, it is not plausible that understanding is partially constituted by those abilities. The relevant intellectual abilities are more plausibly seen as *consequences* of understanding than as *constituents* of understanding. (cf. §2.2) It is because you understand why climate change is occurring that you can give a good explanation of climate change, one that appeals to carbon emissions from human beings burning fossil fuels. It is because you understand why climate change is occurring that you can infer how things would have been different, if human beings had burned something else, or emitted some pollutant other than carbon, and it is because you understand why climate change is occurring that you can predict what would happen if various policies and practices were adopted. The understanding is prior to the relevant intellectual abilities and explains why you have them.

You might object that the acquisition of understanding is sometimes facilitated by giving explanations, and therefore that, in the relevant cases, your ability to give explanations is explanatorily prior to your understanding. Now, we should set aside cases in which your coming to know that you understand something is the result of explaining it. In such cases, both your understanding and your relevant intellectual abilities are plausibly explanatorily prior to your exercise of said abilities. What would concern us would be cases in which your ability to explain something is explanatorily prior to your understanding it. I want to concede that there are cases in which your explaining something is explanatorily prior to your understanding it. But this is consistent with the claim that understanding is explanatorily prior to the possession of the relevant intellectual abilities. Your doing something can explain your having the ability to do it – as when you acquire the ability to do something through practice

²⁸ Zagzebski 2008, p. 145, Hills 2009, p. 121; cf. Nehamas 1985, p. 29. Note that this idea is distinct from the idea that practical knowledge cannot be transmitted by testimony (§1). However, we could collapse these two ideas by arguing that practical knowledge is a species of ability.

²⁹ This is a controversial assumption, given that some argue that propositional knowledge is a species of practical knowledge (Hetherington 2006, cf. Silva 2017).

³⁰ Consider also the idea that understanding requires emotional and motivational dispositions (Callahan 2018), which likewise cannot be transmitted by testimony (*ibid.*, p. 454).

or simply by trying to do it and succeeding. And sometimes your acquisition of said ability is explained by your coming to know or understanding something. Imagine that you arrive at a dark hotel room and do not know where the light switch is, and are thus unable to find it. At this point, you try to find the light switch, by groping around on the walls in the likely spots. When you find the light switch, you thus come to know where the light switch is, and are thus able to find it. In the same way, I propose, when the acquisition of understanding is facilitated by giving explanations, you explain something, and thus come to understand it, and are thus able to explain it.

There remains a worry about the requirement of intellectual abilities, however. It is sometimes said that abilities can only be acquired through practice. Alison Hills (forthcoming) says that “cognitive control” – i.e. those intellectual abilities required for understanding – “comes from practice.”³¹ This would threaten the possibility of testimonial understanding, for if you can transmit understanding to me by testimony, then I have acquired understanding without practice. However, is it really true that abilities can only be acquired through practice? We can at least imagine someone acquiring an ability without practice: we can imagine practical knowledge being “downloaded” into someone’s brain such that they acquire an ability they did not have before. (This is how Neo learns kung fu in *The Matrix*.) But this also seems sometimes to actually happen. Jacques Pépin explains how to test the doneness of meat. Lightly touch your index finger to your thumb, and press and feel the firmness of the muscles beneath your thumb. That’s what rare meat feels like. Now add the middle finger, so that your thumb, index finger, and middle finger are all lightly touching, and feel your hand muscles again. That’s medium rare. Add the ring finger for medium, and the pinky for well-done. You now have the ability to test the doneness of meat, and you got it from Jacques Pépin, without ever practicing – you’ll be able to do it the first time. Thus, abilities can be acquired without practice.

2.4 Understanding requires acquaintance

Consider the aforementioned passage from the *Theaetetus*:

[S]uppose a jury has been justly persuaded of some matter *which only an eye-witness could know, and which cannot otherwise be known*; suppose they come to their decision upon hearsay, forming a true judgment: then they have decided the case without knowledge [ἐπιστήμη], but, granted that they did their job well, being correctly persuaded[.] (201b-c, my emphasis)

This association of ἐπιστήμη and acquaintance is reflected in the entry for ἐπιστήμη in the Liddel-Scott-Jones *Greek-English Lexicon*, which provides this in the first instance: “*acquaintance with a matter, understanding, skill, as in archery.*” This all jibes, of course, with the idea that understanding requires certain intellectual abilities (§2.3).

Might we then defend testimonial understanding pessimism by appeal to the premise that understanding requires acquaintance with its object? Again, we are not interested if acquaintance is merely a consequence or precondition of understanding (§2.2). But neither of those is plausible. There are two main options here.

³¹ Cf. Zagzebski 2001, pp. 241, 2008, pp. 143-44.

First, we might argue as follows:

1. Understanding is a species of acquaintance.³²
2. Acquaintance cannot be transmitted by testimony.
3. Therefore, explanatory understanding cannot be transmitted by testimony.

Assuming propositional knowledge is not a species of acquaintance, we have the asymmetry we seek.

There is a familiar sense of “knowledge” on which knowledge is a species of acquaintance – there are familiar contexts in which to say that someone knows the pangs of unrequited love, or that someone knows the streets of Kinshasa, or that someone knows Jack Kennedy, is just to say that they are acquainted with that object of knowledge. And such acquaintance clearly cannot be transmitted by testimony, for acquaintance is an historical property – someone acquainted with the pangs of unrequited love must actually have felt them, someone acquainted with the streets of Kinshasa must actually have been there, someone acquainted with Kennedy must actually have met him. If I have never felt those pangs, walked those streets, or interacted with Kennedy, no testimonial exchange can make me acquainted with those things.

However, understanding is not plausibly a species of acquaintance. We can understand why historical events occurred without being acquainted with their explanations; we can understand how neurological or microphysical processes work without being acquainted with them; we can understand why there are no ice cream bars left without having seen or heard our children snatch them. And, more broadly, the objects of explanatory understanding often seem not to be the kinds of things of which one might have acquaintance – what would it mean to be acquainted with natural selection, climate change, or the Industrial Revolution? There may be a sense of “understanding,” analogous to the aforementioned sense of “knowledge,” on which understanding just is a species of acquaintance. But explanatory and objectual understanding are different.

Second, we might argue that acquaintance is the only adequate basis for understanding, that acquaintance is always needed to ground or support understanding. If so, testimonial understanding seems precluded. And assuming acquaintance is not the only adequate basis for propositional knowledge, we have the asymmetry we seek.

However, that acquaintance is *always* needed to ground or support understanding is implausible. As in the cases mentioned above, explanatory understanding can be based on inference to the best explanation. Perhaps sometimes acquaintance is needed to ground or support explanatory understanding, but not always. And that undermines any asymmetry with propositional knowledge, since acquaintance is sometimes needed to ground or support propositional knowledge. “No one can be told what the Matrix is,” Morpheus argues, “You have to see it for yourself.” He means that you would not reasonably believe in the Matrix on the basis of testimony; in this case, first-hand knowledge is the only option. The issue, in this case, seems to be evidential: seeing the Matrix for yourself gives you evidence stronger than any testimonial evidence you could acquire. Perhaps something similar happens with some cases of

³² Zagzebski (2001) says that “understanding is a state in which I am directly aware of the object of my understanding.” (p. 247)

explanatory or objectual understanding. It might be impossible to understand the Triangle Offense or why it works without seeing it in action. But there is no asymmetry with propositional knowledge here.

2.5 Understanding is non-propositional

Zagzebski (2001) argues that:

[U]nderstanding is not directed towards a discrete object, but involves seeing the relation of parts to other parts and perhaps even the relation of part to a whole. It follows that the object of understanding is not a discrete proposition. One's mental representation of what one understands is likely to include such things as maps, graphs, diagrams, and three-dimensional models in addition to, or even in place of, the acceptance of a series of propositions. (p. 241; cf. 2008, pp. 144-5)

Consider, then, an argument:

1. Understanding is non-propositional.
2. Everything testimonial is propositional.
3. Therefore, understanding cannot be testimonial.

Since propositional knowledge is, of course, propositional, we have the asymmetry we seek.

Everything depends here on what we mean by "propositional," and on whether there is a sense of "propositional" on which premises (1) and (2) are both true. I will make three observations in connection with this.

First, premise (1) seems most plausible when we consider cases in which the object of understanding is something big and complex or otherwise difficult to understand, such that understanding requires not merely the possession of information but abstracting away from details and mapping out connections. In cases of easy understanding (§2.1), the idea that understanding is non-propositional is less compelling. It is unclear that understand why your pillow is destroyed involves anything more than representing the proposition that your dog chewed it up and thereby destroyed it.

Second, note that Zagzebski (2001) associates propositions with *sentences*. She says that the process of coming to understand "uses diagrams, graphics, and other representational forms in addition to sentential reasoning" (p. 242) and contrasts understanding with "a form of knowledge that is mediated through a sentential structure." (p. 242) When she denies that "the proposition is the only form in which reality can be made intelligible to the human mind," (p. 242) she is making a point about the diversity of representations we can use, not all of which are sentences, sets of sentences, or have a sentence-like structure. However, this use of the term "proposition" is in tension with another familiar use, on which propositions are essentially that which can be true or false, and serve as the objects of the eponymous propositional attitudes, including propositional knowledge. Familiar debates in metaphysics and the philosophy of language about the nature of propositions are debates about these, not about sentences or something assumed to have sentence-like structure.

Moreover, it seems like there are cases of propositional knowledge – or, at least, knowledge constituted by an attitude whose representational content is something that can be true or false, i.e. a proposition, in

the aforementioned familiar sense – that are non-sentential, or anyway not “mediated through a sentential structure”:

- I know what house wrens look like. But I could not express this knowledge with a sentence or series of sentences – not in a way that would distinguish house wrens from other similar birds. But I do know the difference; I can visualize a house wren alongside members of similar species. I just can’t put the difference into words.
- I know the exact color of post-it notes – it is *that color*, right there, the color of those post-it notes on my desk. I know that post-it notes are that color. But I cannot explain or articulate what color they are; the only way to communicate what I know is show you a post-it note.
- I know exactly where Traverse City, Michigan, is. But I can’t tell you without pointing to a part of my hand, which indicates the location of Traverse City in Michigan’s mitten-shaped Lower Peninsula. Sure, I could say “It’s on the coast of Lake Michigan” or “in the northwestern Lower Peninsula.” But my knowledge is much more exact than that.

Clearly, I have some kind of knowledge in these cases, even if my knowledge is non-sentential. Note that, in each case, knowledge can be attributed using a “that” clause: I know *that* house wrens look a certain way, I know *that* post-it notes are such-and-such color, and I know *that* Traverse City is located there (pointing to its location on my hand). These hardly seem like cases of understanding, or at least not explanatory or objectual understanding. Are these perhaps cases of non-propositional knowledge in disguise? In each case, practical knowledge seems to be involved: knowing what house wrens look like involves knowing how to identify them when you see them; knowing the exact color of post-it notes involves being able to recognize other things that are the same color; knowing exactly where Traverse City is involves being able to point to it on a map – or hand. But each of these items of practical knowledge seems like it is grounded in my *prior* propositional knowledge: it is because I know that house wrens look a certain way that I am able to identify them; it is because I know that post-it notes are such-and-such color that I am able to recognize other things of that color; it is because I know that Traverse City is where it is that I am able to locate it on a map. In at least the first two cases, there is phenomenological knowledge involved – I know what it’s like to see a house wren and I know what it’s like to look at something the color of post-it notes. But in both cases I seem to know something more, something else, beyond those items of phenomenological knowledge. Thus, given the possibility of non-sentential propositional knowledge, it is unclear whether pictures (including maps), and with them diagrams, graphs, and models, are “non-propositional” in a sense that would preclude their essential involvement in propositional knowledge.

Third, what motivates premise (2), the premise that everything testimonial is propositional? I think what lies behind it is a certain common conception of a testimonial exchange on which any genuine *testimonial* exchange (or in any case of genuine *transmission* by testimony):

- i. the speaker performs a particular speech act – either saying that p, asserting that p, or telling that p – and,
- ii. the hearer responds with a particular attitude – namely, believing that p.

For example, Zagzebski (2012) assumes that a testimonial exchange has the following form: “a person tells me that p and leads me to believe that p,” (p. 174; see also Zagzebski 2008, p. 145) and Hills (2006)

assumes that a testimonial exchange involves one person telling another that some proposition is true (p. 671) and that testimony takes the form of “assertions passing on propositional knowledge.” (p. 670) I am going to unsympathetically call this the *overly simple model of testimony*.³³

Why is it overly simple? Because there are some kinds of testimonial exchange that don’t fit with it. Consider:

- **Storytelling.**³⁴ Sometimes, the speaker does not tell the hearer that p, but rather vouches for a perspective, by embedding that perspective in a narrative. For one example (Fraser unpublished), the geography of a town can be described in such a way as to “cue” a “procedural representational format,” by presenting relevant information in the form of instructions for how to drive there (“To get there drive east along the east-west Highway to the Green River which rushes out of some low hills to your left,” and so on). For another example (Fraser unpublished), a sexual encounter can be described in such a way as to “cue” a “manipulationist representational format,” by presenting the object of the protagonist’s desire as someone to be manipulated (“[S]he didn’t even have time to rebel or even pretend to rebel. In a moment, I had her in the tub, stockings and all.”) In cases like these, the hearer can come to share the speaker’s perspective.
- **Showing.**³⁵ Sometimes, although you could describe the speaker as telling the hearer that p, it would be more natural to say that the speaker shows the hearer that p, by showing them something which determines the content of the proposition that p. “Millipedes look like this,” I say, pointing to a picture in a book. “He danced like this,” I say, doing a simulation of his dance. In cases like these, the hearer came come to share the speaker’s (propositional) knowledge.
- **Explaining.**³⁶ Sometimes, the speaker does not tell the hearer that p, but rather explains why p. Explanation is distinct from telling; to explain to someone why p is not merely to tell them that p because q, nor is it to tell them a series of things about why p, although it may involve telling them various things. Explanation often involves comparisons, analogies, and metaphors. For one example, Hitchcock is said to have explained suspense by comparing a bomb under a table that explodes, which is merely surprise, with a bomb under a table that does not explode, which is suspense (Hazlett forthcoming). Explanations are also often dialogical: the hearer may ask questions, or be asked questions, and the exchange may proceed in an adversarial spirit, with a critical back-and-forth structure. For example (Green 2019, pp. 54-5), a father might explain his daughter’s personality by refusing to straightforwardly answer the question of whether she is an introvert (“She kind of steals the show at dinner parties,” but “those same parties exhaust her, and sometimes she voluntarily takes breaks from them.”) or an extrovert (“Well, she’s genuinely gregarious.”) In cases like these, the hearer comes to share the speaker’s understanding.

Of course, you can stipulate that these are not genuine testimonial exchanges. You can define “testimony” or “transmission” such that storytelling cannot involve the testimonial transmission of perspectives, showing cannot involve the testimonial transmission of knowledge, and explaining cannot involve the testimonial transmission of understanding. But such stipulation would make testimonial

³³ See also Hawley 2010, pp. 403, Hills forthcoming.

³⁴ Cf. Fraser unpublished.

³⁵ Cf. Hazlett forthcoming.

³⁶ Cf. Barnes 1987, p. 203, Hazlett forthcoming.

understanding pessimism uninteresting. We do better to think about what is distinctive of a testimonial exchange, without assuming the overly simple model of testimony, and then see if cases like these – and, in particular, would-be cases of testimonial transmission of understanding – have those distinctive features.

I argue (forthcoming, §2.2) that there are three distinctive features of testimonial exchanges. In a testimonial exchange, in which attitude *A* is transmitted from speaker to hearer by testimony:

- i. The hearer's having *A* is conditional on the perceived credibility of the speaker. For example, if you believe that Grant was drunk at West Point because you were told this by someone you took to be a Distinguished Professor of American History, when they turn out to be a famously foolish, if well-dressed, graduate student, you will abandon your belief.
- ii. The hearer is entitled to “pass the buck” to the speaker with respect of the non-testimonial support for *A*.³⁷ For example, if I say that Grant was sober at Shiloh, which I believe on the authority of a credible historian, and you want to know what the evidence is for this claim – meaning the non-testimonial evidence, since the testimony of a credible historian is certainly a kind of evidence – I will refer you to the historian, whom I expect to have such evidence.³⁸
- iii. The hearer is entitled to blame the speaker if it turns out that *A* is incorrect.³⁹ If a credible historian tells you that Grant was drunk at Cold Harbor, which you on that basis believe, you are within your rights to resent the historian if it turns out that Grant was not drunk at Cold Harbor.

Sandy Goldberg (2011) argues that these last two features – to which I have added the first – “are a familiar part of our practice of taking something on another's say-so.” (p. 178) Note that they are not present in cases of non-testimonial propositional knowledge, even cases involving intellectual dependence, as when you are persuaded by an argument given by another person.

Furthermore, I argue (forthcoming, §2.3) that these three features are sometimes present in cases of understanding. If my understanding of why *p* is based on your explanation of why *p*, my acceptance of your explanation is conditional on your perceived credibility. And I am entitled to pass the buck to you when it comes to the ultimate ground for my picture of how things hang together, for the connections I now (seem to) see, for the sense I have (apparently) made of things. And if it turns out you did not really understand why *p* – perhaps even that my apparent understanding of why *p* is actually misunderstanding – then I am entitled to blame you for misinforming me. Thus, it seems to me, once we appreciate what is actually distinctive of testimonial exchanges, we can make room for the possibility of testimonial understanding.

³⁷ Goldberg 2006, pp. 133-7, 2011, pp. 177-8.

³⁸ In this case, there is a role-based expectation that the historian not merely pass the buck again, but in other cases, the speaker may do so – but we expect the buck to stop somewhere, with someone who has non-testimonial evidence.

³⁹ Cf. Goldberg, *op. cit.* My formulation of this idea is different from Goldberg's, but the difference will not matter for our purposes here.

3 Conclusion

In this chapter I articulated testimonial understanding pessimism, on which understanding cannot be transmitted by testimony in the same sense that propositional knowledge can be transmitted by testimony (§1). I then articulated and criticized five arguments for testimonial understanding pessimism (§2).⁴⁰

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⁴⁰ Thanks to Aidan McGlynn for comments on a draft of this chapter.

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