To what extent are we justified in believing testimony? Perhaps, it is to the extent we could justify it in more basic terms like perception, memory, and inference. Call this strand reductionism. A worry is that reductionism makes justified testimonial belief too hard to obtain. Perhaps, testimony is a basic term itself. Call this strand anti-reductionism. These are the two major strands in the justification debate. Lackey[1] contends that these two strands are insufficient at justifying testimony. Against this contention, Lackey advances a synthesis of the two strands; it takes two to tango.

In this paper, I want to tackle two problems. First, I want to tackle Lackey's solution. I contend that her solution falls to the same problem that renders reductionism untenable. Second, I want to tackle the reductionism/anti-reductionism distinction itself. In my view, the distinction is artificial: they have been talking past each other. I contend that these two strands are in fact consistent and complimentary. Subsequently, we could resolve the problems that plague the justification of testimony.

I shall structure the essay as follows. First, I will detail the two general strands within the debate: reductionism and anti-reductionism. I will lay out their general theses and the cases against them. Next, I will follow Lackey in sketching out her dualist solution in view of the above negative cases. I contend that her view falls to the infant-child objection the same way reductionism falls. I will further consider some objections against the case. Namely, the objection she posed in her 2005[2] paper against the infant-child case. I contend that this argument does not meet the infant-child case I present. Then, I will give a diagnosis of Lackey's failure. I contend that Lackey's failure comes from an inherent misunderstanding of the senses of justification in the reductionist/anti-reductionist paradigm. I will draw on Sosa's distinction between animal and reflective knowledge to define the two senses of justification in which I shall use to diagnose the failure. Finally, in view of paradigmatic failure, I will sketch a holistic view. I contend that following the diagnosis, reductionism and anti-reductionism could be understood in complimentary terms. Subsequently, the problems of testimonial justification could be resolved.

Reductionism is the strand with the thesis: testimonial belief is justified in terms of perception, memory, and inference; testimony is not a unique way of knowing. Within this strand, there are two sub-strands: global reductionism and local reductionism. Global reductionism contends that testimony is justified qua testimony as a way of knowing grounded in perception, memory, and inference. Local reductionism contends that an instance of testimony is justified iff one has positive reason to the extent that it is rational to believe that instance of testimony.

Against global reductionism, Lackey[3] argues that testimony is a heterogeneous group; it is unclear how the fact that testimony qua testimony is reliable justifies an instance of testimony. Consider the following case: Anna is a layperson in mathematics. She is a reliable testifier about a lot of things: what she ate for breakfast, what her sleep schedule is like, etc. Yet, ex hypothesi, it is unintuitive to suggest that we are justified in believing her testimony to

[1] Lackey, 'It Takes Two to Tango'.
[2] Lackey, 'Testimony and the Infant/Child Objection'.
[3] Lackey, 'It Takes Two to Tango'.

a mathematical theorem; in view of global reductionism, we are justified in believing her testimony. This is a contradiction. While testimony qua testimony may be reliable, it is orthogonal to how we should think about testimony.

Against local reductionism, Lackey[4] argues against the sufficiency horn of the thesis. Consider the following case: Anna is a reliable testifier about people who know about birds: throughout our years of knowing her, we have sufficient evidence by way of perception, memory, or inference that she is reliable. Anna testifies that Bob is a reliable testifier about birds. Bob testifies that pelicans have the largest wingspan out of all birds. Unbeknownst to us, Bob is an unreliable testifier: he lies about birds. We have excellent positive reason to believe in Bob's testimony; we are not justified in believing Bob's testimony. Local reductionism fails.

Anti-reductionism is the strand with the theses: (a) we have the presumptive right to believe a testimony iff we have no defeater, and (b) the testimony tracks truth. Against this strand, Lackey[5] argues that it allows for gullibility. Consider the following case: an alien drops a journal that testifies: "A lion has eaten three of us." The testimony is true. We happen to come by this journal by accident. We read the journal. There is no defeater. We are justified in believing the testimony; we are not justified in believing the testimony: we are gullible. Anti-reductionism fails.

Following the negative cases above, Lackey diagnoses the problem with each strand: local reductionism lacks a truth-tracking condition; anti-reductionism lacks positive reason. Hence, Lackey[6] advances the following dualist solution: testimonial beliefs are justified iff (a) one has positive reason to the extent that it is not irrational to believe the testimony and (b) the testimony must track truth. Per Lackey, this view avoids the problems above.

Against dualism, I will argue that it falls to the same case that renders reductionism untenable: the infant-child case. Specifically, I will outline the infant-child case against reductionism. Then, I will outline a slightly modified case against Lackey. Against this modified case, I will consider Lackey's treatment of the infant-child case. I will argue that we fail to meet each other and thus the case stands.

The infant-child case against reductionism is as follows: a child has little knowledge about the world. To the extent that the child could infer against their knowledge corpus, they do not have positive reason to the extent it is rational to believe a testimony; following from reductionism, the child is not justified in believing any instance of testimony. A child is justified in believing their parents and teachers' testimony about the world. Suppose a teacher testifies that zebras have black and white stripes, the child is justified in believing so. This is a contradiction: the child is not justified in believing the teacher; the child is justified in believing the teacher. Reductionism fails.

The same line of attack could be advanced against Lackey. To the extent that it is not irrational to believe a testimony, a child does not possess enough knowledge to infer so.

[4] Ibid.
[5] Ibid.
[6] Ibid.

Consider the following case: it is a three-year-old's first day at school. They have no knowledge about schools, teachers, or adults. The only interaction they have ever had with the world was with their parents. Their parents have not told them anything about the world. The teacher testifies that zebras have black and white stripes. Given the limited knowledge corpus the child has, there is no positive reason to the extent that it is not irrational to believe the testimony: to have positive reason, the child must have reason to believe that adults are reliable testifiers, teachers are reliable testifiers, etc.; it is not not irrational to draw conclusions about the reliability of the teacher qua adult, educator, etc. from the child's corpus of two data points, their parents. Hence, the child is not justified in believing the teacher's testimony about zebras; it is unintuitive to suggest that the child is not justified in believing the teacher. Dualism fails in the same vein as reductionism.

In her 2005 paper, Lackey[7] addresses the infant-child objection at length. We do not meet here. Lackey resists the infant-child charge in case where the presumption is that children are cognitively incapable of forming positive reason. Against the presumption, Lackey argues that the cognitive incapacity to form positive reasons also applies to negative reasons. At best, the infant-child case trivializes anti-reductionism; at worst, it renders anti-reductionism untenable in the face of norms of rationality. The infant-child objection cuts no ice. In the case I presented above, I do not presume children are incapable. In fact, I presume they are capable; they just do not have the necessary knowledge corpus to reason positively to any extent. Yet, they are in fact justified in believing testimonial knowledge; the case stands.

On Lackey's failure, I diagnose the following problem. Her solution, situated within the reductionist/anti-reductionist paradigm, rests on a confused understanding of the senses of justification between intuitions. I will argue that these senses of justification operate on separate levels. Subsequently, any attempt at collapsing them into a single level, e.g. the reductionism/anti-reductionism debate, faces the insufficiency of the single sense account of justification. To do this, I will make the distinction between animal and reflective knowledge[8]. Then, I will draw from the distinction the kinds of justification they require. I will argue that the intuitions of reductionism and anti-reductionism only make sense in view of this distinction. Hence, the reductionist/anti-reductionist paradigm fails (and, by extension, any solution situated within it).

Sosa[9] distinguishes animal knowledge from reflective knowledge: animal knowledge is simply reliable, reflective knowledge is defensibly reliable. That is, knowledge is only reflective to the extent that one could defend the reliability of one's belief in view of one's knowledge corpus. Having reflective knowledge bolsters the reliability of our knowledge. If we are to be epistemically virtuous, we must constantly reflect upon our knowledge to make it more reliable; there is pressure to go above animal knowledge.

Following this distinction, I make the following distinction between justifications: ordinary justification and reflective justification. Ordinary justification is the justification maximally

[7] Lackey, 'Testimony and the Infant/Child Objection'.
[8] Sosa, 'A Virtue Epistemology'.
[9] Ibid.

necessary to attain animal knowledge; reflective justification is the justification maximally necessary to attain reflective knowledge.

Ordinary justification is the justification maximally necessary to attain animal knowledge. Animal knowledge is knowledge that is simply reliable. In view of this, a characterization of ordinary justification is that S has the presumptive right to believe p in case S's other knowledge, animal or reflective, does not contradict the content of p and S's belief that p tracks truth.

Reflective justification is the justification maximally necessary to attain reflective knowledge. Reflective knowledge is defensibly reliable knowledge. In other words, if one could defend the method by which one attains knowledge, such knowledge is reflective. In view of this, a characterization of reflective justification is that S's belief that p could be grounded in other knowledge, animal or otherwise.

Reductionism and anti-reductionism admit two different facta as starting points. Anti-reductionism admits the factum that any account of testimony should account for the fact that one could ask any stranger on the street about the location of your destination and believe their testimony. Reductionism admits the factum that any account of testimony should account for the fact that testimony could be wrong and requires a certain degree of epistemic work from the hearer to be justified in believing. The categorical mistake made by both camps is that they generalize from these two facta without appreciating the difference in the levels of justification they are talking about. Reductionism demands reflective justification for all testimonies and anti-reductionism demands ordinary justification for all testimonies; they aim to collapse both levels into one. The trouble is that in collapsing justification, we inevitably run against the insufficiency of our single sense of justification. Hence, against the schism between the two senses of justification, the reductionist/anti-reductionist paradigm does not make sense: they demand collapse where collapse is not possible[10].

Building on my diagnosis, I contend that the mapping between the reductionist and anti-reductionist facta and the two senses of justification allows for a layered understanding of testimony that avoids the problems that plague the justification of testimony. To support, I will build on the mapping between the reductionist and anti-reductionist facta and the two senses of justification to sketch an account of testimonial justification. Then, I will show how the account achieves all the desiderata of an account of justification.

In view of the starting points of reductionism and anti-reductionism, we have the following desiderata for testimonial justification: an account of testimonial justification must make accommodation for the fact that one could ask a stranger on the street about the location of one's destination and be justified in believing it and at the same time must require some degree of epistemic work. As we have shown, the former factum appeals to ordinary reason and the latter appeals to reflective reason. Following this, I sketch an account of testimonial justification, call this holism:

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[10] On this diagnosis, Lackey's view is a reductionism. Hence, it runs into the problems as outlined.

1. S is ordinarily justified in believing the testimony that p only when (p + S's knowledge corpus) is consistent and the testimony that p tracks truth
2. S is reflectively justified in believing the testimony that p only when S's knowledge corpus supports p and p is S's animal knowledge

On holism, we have a layered understanding of testimonial justification. To illustrate, suppose S is in an alien situation—S is in a foreign town—S is justified ordinarily in believing that the local's testimony regarding the location of S's destination. If we were to ask about S's belief regarding their destination's location, S could not defend so; that is fine! To the extent that it serves S to get to S's location, S is justified in believing so. On the other hand, to the extent that we push S to justify the reliability of their belief, if they could defend their belief against their knowledge corpus; S manages to avoid gullibility. Upon reflection on the aptness of their belief, S could revise their method of knowing to bolster reliability. That means S is epistemically virtuous. S ought to be epistemically virtuous. This ensures pressure for S to constantly reflect upon their testimonial animal knowledge, resisting against the gullibility charge: that there is no pressure for S to do epistemic work.

Let us put holism to work. On the infant-child case, while the child lacks the corpus to reflectively justify their testimonial belief, they still are entitled to ordinary justification. The child is justified in acting on their ordinarily justified testimonial beliefs. The onus is on the adults to cultivate a healthy epistemic environment for the child to form enough animal justified testimonial beliefs (and maybe knowledge) to become virtuous epistemic agents. To this end, holism manages to escape the claws of the infant-child case against reductionism: there is no pressure on the child to justify their own testimonial beliefs!

From the above illustrations, it is easy to see the effects of holism. It places the epistemic work on both the listener and the speaker. On the listener, they cannot be epistemically inert; it is in their epistemic responsibility to bolster their reliability by way of reflection. On the speaker, they must ensure a healthy epistemic environment for the speaker. Indeed, it takes two to tango. Still, the tango must be played right; we cannot neglect the various senses of justification. Against the reductionist/anti-reductionist paradigm, Lackey made the mistake of collapsing the two senses of justification. This makes her account vulnerable to the infant-child case. On holism, we manage to capture Lackey's concern with reductionism and anti-reductionism while avoiding the problem fundamental to the paradigm. (2478 words)

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