The gift of testimony

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Abstract: In this paper I argue that in Western contemporary societies testimony is structured by norms of reciprocation and thus is best understood as involving the exchange of gifts rather than, as philosophers and game theorists have tended to presume, market transactions. My argument is based on an initial analysis of the reactive attitudes that are exhibited in testimonial exchanges. I highlight the central role played by the reciprocating attitudes of gratitude and gratification respectively in the recipient and the donor of testimony. This analysis leads to an account of the speech act of telling that is the primary vehicle of testimony. Telling, I argue, is a commissive but it is not, as it is usually presumed, akin to promising. Instead, its nature is that of an offer of a gift. Finally, I develop an account of the norms of trust and trustfulness as reciprocating social norms. I show that adopting these norms provides a particularly effective solution of the problem of cooperation. The solution is particularly effective because it incentivises both the sharing of epistemic goods and the acquisition of further such goods so that one is able to share them.

The epistemic practice of testimony as the transfer of epistemic goods is a solution to a problem of cooperation with regard to the pooling of information. In every community some individuals possess epistemic goods such as knowledge, understanding, truth or warranted belief that would be valuable to other community members who do not have them. Also, the community as a whole would typically be better off if these epistemic goods were shared, so that its members’ needs for information could be satisfied. However, there are non-epistemic motives why those who possess valuable epistemic resources might wish to deprive others the enjoyment of the same in order to benefit from their positional advantage.¹ Yet ultimately everyone is better off if one is a member of a community where

¹ For a persuasive defence of the view that these problems arise primarily when agents have mixed epistemic and selfish motives see Henderson and Graham (2017b).
people share information rather than keep it secret or mislead others. Testimony as a practice governed by norms of trust and trustworthiness is a human solution to this problem.²

In this paper I argue that in Western contemporary societies testimony is structured by norms of reciprocation and thus is best understood as involving the exchange of gifts rather than, as philosophers and game theorists have tended to presume, market transactions. My argument is based on an initial analysis of the reactive attitudes that are exhibited in testimonial exchanges. I highlight the central role played by the reciprocating attitudes of gratitude and gratification respectively in the recipient and the donor of testimony. This analysis leads to an account of the speech act of telling that is the primary vehicle of testimony. Telling, I argue, is a commissive but it is not, as it is usually presumed, akin to promising. Instead, its nature is that of an offer of a gift.³ Finally, I develop an account of the norms of trust and trustfulness as reciprocating social norms. I show that adopting these norms provides a particularly effective solution to the problem of cooperation. The solution is particularly effective because it incentivises both the sharing of epistemic goods and the acquisition of further such goods so that one is able to share them.

The paper consists of four sections. In the first I explain the cooperation problem that testimony emerged to solve and why it is a problem. In the second I describe the reactive attitudes surrounding testimony and highlight the circumstances in which they are fitting. In the third section I offer an analysis of telling as the making of an offer akin to the giving of a gift. In the final section I argue that the norms of testimony are reciprocating norms that are characteristic of gift economies. I also argue that the development of a practice that treats testimony as the offer of a gift provides a more effective solution to the cooperation problem for epistemic goods than would be offered by a practice that treats them as market goods.

² I this follow Henderson (2018) and Henderson and Graham (2017a) in presuming that some epistemic norms are social norms because they consist of complex normative expectations that constrain the conduct of community’s members. These norms are social because they can be historically and culturally variable. However, unlike Henderson and Graham I use the term ‘social norm’ in a different sense than that offered by Bicchieri (2006, p. 11). The main difference is the claim central to this paper that some normative expectations are not oughts but have instead a weaker normative force.

³ Granted it is possible to offer a promise, but to make such an offer is not to have made the promise.
1. The Problem of Cooperation

In every society, no matter how primitive, where individuals are able to communicate with each other there are significant societal advantages if members of the group share information. In most circumstances some individuals have positional advantages over others. For example, they might find themselves in a location that allows them to observe something and thus acquire information. Such information might be of value to others who do not possess it because they were not in the right place at the right time. In many such cases the group as a whole would be better off if those who possess useful information were prepared to share it.

However, as is well known, there are disincentives to sharing. Whilst ceteris paribus it is always in one’s own self-interest if others communicate to one valuable information that one does not possess, it is at times in one’s self-interest not to share such information with others. This situation gives rise to the so-called ‘free rider’ problem. The problem emerges when, although every person is worse off if no one cooperates and better off if everybody does, each person’s best outcome is for everyone else to cooperate when she does not. This situation, known as a prisoner’s dilemma, represents one kind of case in which cooperation is hard to achieve (Axelrod, 1984, ch. 1). Even in these circumstances cooperation is likely to emerge if the people involved know that they will repeatedly find themselves in the same situation, since it may pay off to develop a reputation as a nice guy (Bicchieri, 2006, p. 143). However, in the case of a large group of loosely associated individuals there might be no reason to believe that the two people will find themselves in the same situation in future. If that is the case, the problem of cooperation will emerge.5

The view that the epistemic practice of testimony has developed in response to prisoner’s dilemmas has been defended by Williams (2002) and more recently by Faulkner

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4 I prefer to think of the issue in these terms rather than as a public goods problem because I do not wish to presume that participants take knowledge to be akin to a common fund.
5 Strictly speaking there are more constrains, see Axelrod (1984).
Both have argued that this epistemic practice is governed by paired social norms of trust and trustworthiness that obligate the recipient of the testimony to trust the testifier, whilst the giver of testimony has a duty to be trustworthy. That is, the testifier is under an obligation to be sincere and epistemically competent whenever they engage in the act of testimony; whilst the recipient of the testimony ought to trust the testifier.

Williams suggests that there are no game-theoretic solutions to this problem of cooperation because as long as individuals value sincerity only as means to self-interested goals the incentives to defect will always render cooperation unstable and prone to breaking down (2002, pp. 58-60). Faulkner endorses this conclusion with regard to encounters that might be a one-off and where both parties are ignorant about each other’s previous behaviour. He also offers an account of what it means to say that the problem of cooperation is solved only when agents value sincerity intrinsically or from the inside. In Faulkner’s view this requires that individuals follow the imperative to be sincere for the right reason or motive which, in this instance, is other people’s need for valuable information. The norm of trustworthiness therefore supplies a reason to be sincere when deliberating over whether to share testimony (Faulkner, 2014, pp. 182-186).

These considerations lead Faulkner to offer the following accounts of the paired norms of trustworthiness and trust. The norm of trustworthiness is the obligation that speakers be trustworthy, where to be trustworthy is to tell the truth informatively for the reason that the other person depends on one for the truth (informatively told) (2014, pp. 147-148). The paired norm of trust is the obligation that the audience trusts the speaker; that is, the audience takes the speaker to tell the truth informatively for the reason that the audience needs to be told (2014, pp. 146-149).

Faulkner argues that these norms govern our testimonial practice on the grounds that it is shaped by negative reactive attitudes such as resentment and disappointment. He notes that in a testimonial exchange both the testifier and the recipient of the testimony have expectations about the behaviour of the other party. The recipient of the testimony expects the testifier to be informed and sincere, whilst the testifier expects to be believed. These expectations are not mere predictions, even though they might include predictions. The recipient of testimony normatively expects to be told the truth informatively as elicited in her disposition to resent a speaker if the speaker is not motivated by the audience’s need
for information to supply it (Faulkner, 2014, p. 181). The testifier normatively expects to be believed. That is, she expects the audience to believe what she says because the audience presumes that its need for information is what motivates the speaker to supply it. This expectation is normative since the speaker resents her audience if the audience does not believe that the speaker’s motive for her testimony is to satisfy the audience’s need for information.

To summarise, on Faulkner’s account the epistemic practice of testimony is governed by two social norms of trust and trustworthiness. In his view, these norms are orders or imperatives (2014, p. 179). They prescribe conduct so that those who are subject to them acquire mandatory obligations to act as the norms order them to. The testifier has an obligation to the people who trust her to be trustworthy. Conversely, the recipients of testimony have an obligation to trust the speaker. These social norms would be instituted and maintained thanks to the punitive attitudes of resentment and disapproval, and to sanctioning behaviour directed against those who violate them (2014, p. 179).

In what follows I argue that Faulkner is right that the epistemic practice of testimony is structured by the norms of trust and trustworthiness and that these are the norms that solve the problem of cooperation. He is, however, mistaken about the nature of these norms because they are not typically prescriptive norms issuing mandatory obligations. Faulkner’s presumption that these norms are imperatives has led him to ignore that testimony most frequently elicits positive reactive attitudes of gratitude and gratification. These attitudes indicate that the norms of trust and trustworthiness supply reasons whose normative status is not that of mandatory obligations. The presence of these attitudes also indicates that the speech act of giving testimony is not analogous to promising but to offering. These features of the practice of testimony, I argue, are crucial if we are to understand why it is a particularly effective solution to the problem of cooperation.

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6 For Faulkner, the norms of trust institute an obligation to tell the truth informatively. This includes an obligation to speak when one has the truth and an obligation not to lie or mislead. In the absence of the first obligation the norms of trust would not solve the problem of cooperation since speakers would not be under any normative pressure to share information.

7 For Faulkner, if the audience trusts a speaker in accordance with what the norm of trust requires, this trust furnishes the audience with an explanatory epistemic reason to believe what it is told. The audience’s belief that the speaker is competent and sincere, which is part of the audience’s trusting attitude, gives it a reason to believe that the testimony is true even though this reason is not an evidential reason that the content of the testimony is true (Faulkner, 2014, pp. 202-203).
2. Testimonial Exchanges and Reactive Attitudes

In this section I describe some of the reactive attitudes that are frequently elicited in testimonial exchanges.\textsuperscript{8} These attitudes are typically responses to others’ activities that manifest their regard or disregard, good or ill will toward us (Strawson, 2008, pp. 10-11).\textsuperscript{9} Reactive attitudes are elicited by normative expectations about agents’ comportment, that is, expectations about what they have a reason to do, or not to do, what is permissible, obligatory or prohibited for them. Thus, understanding the reactive attitudes that surround testimonial exchanges should give us a grip on the social norms that govern these transactions.\textsuperscript{10}

Testimonial encounters can elicit both negative and positive reactive attitudes. Negative attitudes include resentment and disappointment. Positive attitudes centrally involve gratitude and gratification. In what follows I provide thumbnail sketches of some hypothetical cases in which these reactions seem warranted.

1. Testimonial insult – S and A are at a party organised by a common friend, but have never met before. S tells A that there are no cold beers in the fridge. A immediately goes to the fridge ostensibly to check whether there are any beers left. S feels insulted and resents A.\textsuperscript{11}

\textsuperscript{8} I am exclusively concerned with testimony about factual rather than ethical or evaluative matters.
\textsuperscript{9} One may also experience such attitudes vicariously on behalf of the treatment to which a third party is subjected. ‘Good will’ refers to the nature of the regard or concern that one has for others (McKenna, 2012, p. 59). An expression of good will is an action that benefits a person and that is undertaken out of a concern for that person.
\textsuperscript{10} I thus presume that in many instances at least these attitudes are fitting.
\textsuperscript{11} One might argue that resentment is at home in this case only because S and A are already cooperating given that they are engaging in the same activity. Darwall’s (2017) take on these issues would suggest such an approach. In this paper I wish to set aside issues concerning the legitimate expectations that friends might have with regard to each other’s testimony. Within the context of a pre-existing bond sharing information might be obligatory even though in the absence of these connections not sharing is permissible. This paper is only focused on testimonial exchanges between people who do not already care for each other and thus cannot be presumed to be cooperating.
2. **Testimonial betrayal** – S and A do not know each other but find themselves waiting together on a standby list to board an overbooked ferry. S tells A that the ticket officer has told her to return in one hour to check whether any places are available. A returns after an hour to discover that S has lied to her and that all standby tickets have now been allocated. A feels betrayed and resents S.

3. **Testifier disappointment** – S and A are at a party organised by a common friend, but have never met before. S tells A that there are no cold beers in the fridge. After a while S sees A checking whether there are any beers in the fridge. Realising that S is looking quizzical, A nods and smiles in an apologetic manner. S nonetheless feels let down by, and is disappointed in, A.\(^\text{12}\)

4. **Audience disappointment** - S and A do not know each other but find themselves waiting together on a standby list to board an overbooked ferry. S tells A that the ticket officer has told her to return in one hour to check whether any places are available. A returns after an hour to discover that all standby tickets have now been allocated. S is apologetic to A claiming to have been wrong to listen to the ticket officer. Nevertheless, A feels let down by, and disappointed in, S.

5. **Testimonial gratitude** – S and A do not know each other. S sees A struggling with a local map. S approaches A. A asks for directions, and S supplies them. A is grateful and thanks S.

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\(^{12}\) Note that this is an interpersonal kind of disappointment because it is disappointment in a person. It is different from the kind of disappointment that one feels when a much anticipated outcome does not eventuate (Martin, 2014, p. 129). The latter form of disappointment includes disappointment as the reaction to a failure to deliver by something or someone that one relied on (Baier, 1986).
6. Testimonial gratification - S and A do not know each other. S sees A struggling with a local map. S approaches A. A asks for directions, and S supplies them. A is grateful and thanks S. S feels good about herself and is gratified.

The idea that it is insulting not be believed by one’s audience when one has made an assertion purporting to give them information has an illustrious pedigree. G. E. M. Anscombe and J. L. Austin, have claimed that it is insulting or mortifying not to be taken at one’s word (Anscombe, 1979, p. 150; Austin, 1961, p. 68). Refusing someone’s testimony, by not taking her at her words, would - at least sometimes - be insulting because it exhibits a lack of due regard for someone’s interests, status or concern (Daly, 2018). It tends to diminish its target and lower him or her in social status. Resentment would follow because it is a natural response to actions that are interpreted as insulting or constituting a slight.

What is said to be insulting in cases of refused testimony is that the speaker is not taken at her word, that is to say, she is not trusted. It is worth noting that one might not be believed even though one’s audience believes what one has said. For example, suppose that S tells A that the train strike has ended so that the school away-day is on. A might believe what S says without believing S because A thinks that S is both a liar and a prankster. A presumes that S, knowing of her own reputation as a liar, might tell the truth as a prank counting on A’s distrust. A thinks S is double-bluffing and thus believes what S says. If S does not think of herself as a liar, she might feel insulted by A and resents her, even though A believes what S said. Hence, testimonial insult can take place even when the audience believes what a speaker said provided that the audience does not believe the speaker.

Not every instance in which testimony is refused because the speaker has not been believed, is one in which the speaker resents people who do not believe her. There are cases in which the lack of testimonial uptake is justified. For example, the audience might

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13 There are historical reasons why not to be taken at one’s word is experienced as a diminution in social status. In England, at least, in the modern period gentlemen and only gentlemen were taken at their word. Thus, to have one’s testimony refused was to be treated as someone of a lower rank (Shapin, 1994).
14 There is a very small literature on testimonial insult. Hazlett (2017) restricts his discussion to cases where the individuals involved have a pre-existing social or emotional bond. Malcolm (2018), however, aims to give a general account.
15 Malcolm (2018) is insufficiently attentive to this point.
16 It is also worth noting that different contexts might be regulated by different social norms. For instance, academics reading colleagues’ work are expected to take a sceptical attitude rather than a trusting one.
not believe a speaker on a given occasion because the audience has independent reasons not to believe what she said. In listening to S’s testimony, A might realise that S is unaware of an important development, and thus A acquires reasons not to believe what S says, and thus *a fortiori* not to believe S. Whilst, if S is not aware of A’s motives for refusing her testimony, S might resent A, we should expect her, upon learning of A’s reasons, to see A’s behaviour as justified rather than exhibiting ill will or disregard for S. In these circumstances S does not, or at least should not, resent A because A has not insulted S. Further, S would have no reason to be disappointed in A.

Similarly, S generally would not be warranted in feeling resentful of people who do not believe her, but whom she has not addressed in her testimony. Suppose that S tells A, within the earshot of C, that the train strike has ended and that the school away-day is back on. C takes what she has heard as raising the possibility that the strike might have ended and thus she checks whether it has. C does not believe S’s testimony and a *fortiori* does not believe S. C is within her rights to behave as she does. Were anyone to challenge C as to why she does not believe S, C is entitled to say that S is not even talking to her. C is not in a position to ask S for clarifications that C might want, and thus S should not have any expectations that C unquestioningly believes S. Again, S should neither resent nor feel disappointed in C. These are two examples where testimony refusal is neither insulting nor a source of interpersonal disappointment because the refusal is justified rather than being a manifestation of ill will or disregard toward the testifier.

Among strangers, the refusal of testimony is insulting only when it is based on unwarranted negative judgements about the testifier’s moral or intellectual character. For example, it feels insulting if hearers do not believe one because, seemingly without good reason, they think one is a manipulator, a liar, or they think that one is irrational, stupid or lazy.\footnote{These thoughts do not need to be consciously endorsed. They can take the form of implicit attitudes governing behaviour.} What is insulting is, without good reasons, to be believed untrustworthy. I first argue that being presumed untrustworthy is insulting, before defending the view that it is not insulting not to be presumed to be trustworthy.
Sincerity and competence are essential character traits of epistemic agents. Those who are seriously lacking in either of these two regards are not dependable and, therefore, unfit to play the role of informants. That is, without these traits one lacks the credentials required to function as a testifier. To be judged untrustworthy is to be thought of as lacking one or both of these traits. If one is not trusted because one is believed to be stupid, lazy or irrational, one is judged to be incompetent. If one is not trusted because one is believed to be a liar or a manipulator, it is one’s sincerity that is called into question. Either way, one’s status as an epistemic agent is diminished, and if this diminution is unwarranted, it is an insult.

It might be objected that unwarranted negative judgements about untrustworthiness are not necessary for the refusal of testimony to be an insult. Instead, it would be sufficient that a speaker is not presumed to be trustworthy. According to this view a testifier is insulted whenever, in the absence of any reasons to doubt her trustworthiness, her testimony is refused. If this is right, ill will or lack of due regard are not required to insult a testifier, it is enough that the audience does not presume that the speaker is competent and sincere.

This objection neglects the difference between testimonial insult and testifier disappointment. It is insulting to be presumed untrustworthy without good reason. It is not insulting not to be presumed trustworthy, even though it is disappointing. The thumbnail examples presented above illustrate this point. In Case 1 S is insulted because in her view A has taken her to be lying perhaps out of a desire to have more beers for herself. A has thus shown ill will toward S who therefore resents her. In Case 3 S is disappointed in A because of her failure to believe S. S does not resent A, however, because A’s nod and smile indicate that no ill will was intended. For instance, A might just, out of thirst, have hoped that S got it wrong and that some beer was to be found in the fridge. These examples indicate that speakers are entitled to normatively expect not to be distrusted without a reason as evinced by the legitimacy of resentful responses. Speakers are not entitled to normatively expect to

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18 Some of these points are also defended in Malcolm (2018).
19 If this is right the injustice at the heart of testimonial injustice is that those whose credibility is deflated have been insulted because they have been diminished as epistemic agents (Fricker, 2007). In this paper I set aside the further question whether it is ever morally permissible to insult someone.
20 Thanks to John Greco for raising this objection.
be trusted without a reason. Speakers are warranted in their disappointment in hearers who do not take them to be trustworthy, but even in the absence of justifications or excuses, speakers do not resent strangers who, without ill will, do not trust them.

I hasten to add that a speaker might feel disappointed or insulted and thus feel let down by or resent an audience, even though these reactions are unwarranted. For instance, an arrogant individual might have developed lazy ways of thinking, whilst because of her arrogance she continue to present her opinions as fact. Her hearers might think of her as untrustworthy because she is lazy. Learning of their views, she might feel insulted. But their judgment is warranted, and she has no right to resent them. Conversely, a testifier might not feel insulted even though she has been. She might, for instance, not be aware that she is not believed because, being a blond feminine woman, she is thought to be too stupid or vapid to know the difference between fact and mere opinion.

So far I have highlighted the differences between cases of testimony refusals that are warranted or justified because the audience has a reason to doubt the sincerity or competence of a speaker; those that are insulting because the audience presumes without reason that the speaker is untrustworthy, and thereby demonstrates some kind of ill will toward the testifier; and those that are the cause of interpersonal disappointment because hearers are resistant to testimonial uptake but such resistance is due to factors that are not indicative of ill will. Thus, a speaker might be disappointed in an audience that does not believe her because it is made up of doubting Thomases, or of individuals whose wish that what the speaker said is not true makes them ignore the testimony, or of people who are distracted, forgetful or so anxious that they often double check what others say.

It is of significance that refusals of testimonial uptake that warrant speaker’s disappointment (but not resentment) in the hearer are not limited to cases where the hearer has an excuse for her behaviour or is (temporarily or permanently) exempted from participation in the practice of testimony. Wishing that the speaker is wrong is not an excuse for not believing her (or an exemption from the norms of testimony). Nevertheless, speakers usually do not resent those who do not believe them out of wishful thinking that things might be otherwise. This consideration is important because it shows that testifier
disappointment cannot always be construed as a response to a violation of mandatory obligation mitigated by an excuse or nullified by an exemption.  

Audiences also can resent or be disappointed in testifiers. Resentment is fitting in cases of testimonial betrayal when the audience’s trust is intentionally exploited by the speaker. Betrayal occurs when a testifier lies to, or intentionally misleads, an audience that had put its trust in her. By acting in this manner the speaker exhibits ill will or at least lack of due regard toward her audience. The speaker might also be diminishing hearers by presuming them to be credulous or gullible. Either way, in such cases the audience is warranted in resenting the speaker. Thus, audience betrayal and testimonial insult are each other’s mirror image. The speaker who is insulted by her audience is wronged by them and thus is rightly resentful. Similarly, a hearer who is betrayed by a speaker is equally wronged and justified in her resentment.

Hearers might also be disappointed in a testifier when they trusted her and are let down. This occurs when the speaker does not share information or is not fully reliable but these failures are not expressions of ill will since they are caused by distraction, temporary lapses or by some aspect of the circumstances. The testifier might be too shy to speak, might have forgotten some relevant evidence, might misspeak out of carelessness, or have a propensity to spread mere hearsay. These are all cases where agents’ behaviour has fallen short of what was hoped of them, but that do not warrant resentment because the speaker’s conduct is not a manifestation of ill will or lack of proper concern. These also are not always examples where excuses or exemptions are present. Being careless is not excuse for misleading one’s audience but it can be adduced to show that one does not deserve to be resented.

These considerations draw the contours of the circumstances in which resenting or feeling let down by the speaker or the audience might be fitting. They show that

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21 See Strawson (2008, pp. 7-10) for a discussion of mitigating and exculpating circumstances.

22 The notion of hope I have in mind here is akin to what Martin (2014) has characterised as normative hope. Hoping something of someone entails desiring that they aspire to comply with some good principle or goal without requiring that they do. Martin thinks that the attitude of hope is independent of the normative status of what is hoped of someone. Hence, one can both demand and hope of a person that she does what she is duty bound to do. I do not disagree in principle but her examples of disappointment (because of unmet hopes) in someone who failed to do her duty, are all instances where excuses or partial exemptions are present. Mere disappointment without excusing or exempting circumstances indicates the existence of cases where the failure is not a violation of a mandatory obligation.
disappointment is the natural response to lack of trustworthiness or of trust that is not indicative of ill will or lack of due regard even though it is not the result of factors that might serve as an excuse or as an exemption.

However, testimonial exchanges do not exclusively elicit negative reactive attitudes, positive responses are more widespread. To my knowledge, this point has been largely ignored in the existing philosophical literature on testimony, but not in that dedicated to trust (Darwall, 2017, 2019). Malcolm (2018) briefly discusses this possibility when he considers testimonial praise as the opposite of the blame that would accrue to those who insult speakers. He claims that praise for testimony is rare because we do not compliment people for meeting our normative expectations. Praise would only occur when speakers are judged to be especially eminent authorities on the topic of their testimony.

In my opinion Malcolm focuses on the wrong aspect of appraisal by thinking of testimonial insult as blameworthy testimony and testimonial compliment as praiseworthy testimony. What is crucial to testimonial insult is that it warrants the participant attitude of resentment that is a response to perceived ill will or at least lack of due regard in others. Its opposite therefore is not praise but gratitude that is the natural response to perceived good will or special regard in others’ attitudes toward us (Strawson, 2008, p. 6).

The positive reactive attitudes of gratitude and gratification are commonplace in testimonial exchanges. Audiences are very often grateful to testifiers. They manifest their appreciation in a variety of ways. These include thanking the person who has given them the information, applauding after the delivery of a lecture, or simply nodding as a way to agree but also to offer support. These appreciative responses are not merely commonplace; they are normatively expected, but not demanded, by speakers. If S gives A some valuable information, S expects A to thank her or manifest her appreciation in some way. If A fails to do so, S feels let down by A and thinks that A is ungrateful. S might even resolve not to be as helpful to A in future. Nevertheless, S might not be warranted in resenting A. A teacher, for instance, might be disappointed if her class shows no appreciation at the end of a course of lectures, but she has no right to resent them.

23 See Macnamara (2013) for a discussion of thanking as an expression of gratitude.
Speakers generally find the giving of testimony to be gratifying. This is a self-directed attitude that manifests the feeling that in doing something for other people one has fulfilled some standards to which one aspires. Meeting such standards is an occasion for joy and for a sense of self-satisfaction or self-approbation.

Testimony routinely elicits positives reactive attitudes of gratitude and gratification because it involves acts that are generous since they are not mandatory and there is no guarantee of reciprocation. When the testifier tells something to her hearers she meets their hopes of her by benefiting them out of her own good will or because of her regard for their interests. The audience properly responds to this behaviour by giving their thanks. Gratitude in response to testimony indicates that the audience takes the giving of testimony as a manifestation of good will which is reciprocated with a grateful response that is also an expression good will. Such appreciation of one’s benevolence is in turn appreciated by the speaker. It also elicits in her a self-directed attitude of satisfaction and gratification. It is the routine nature of these positive reactive attitudes that, I speculate, might explain why they have not attracted the philosophical attention that they deserve. Because they are almost always present they are not noticed, whilst the infrequent occurrence of insult, betrayal or disappointment might explain why they have attracted attention.

The widespread occurrence of positive reactive attitude in testimonial exchanges is instructive about the normative expectations that structure this epistemic practice. It suggests that the norms governing testimony are not imperatives that institute mandatory obligations. They instead serve as standards about the kind of regard or good will toward others one commits to and normatively expects others to aspire to. Gratification and

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24 One might object that we routinely thank people for doing what we contracted them to do. Gratitude would thus be appropriate in some cases when people merely act as they ought. I disagree. I think examples where this seems to be the case are best explained differently. Sometimes we are grateful when people go beyond their duty by doing what they ought with special care or concern. Sometimes thanks are given out of politeness rather than gratitude. Neither example is therefore an instance of gratitude merely in response to the fulfilment of duty. A related objection is based on Martin’s (2014) observation that we can be grateful to people for doing things which we would resent them for not doing. Thus, we are grateful to people who help us when we are in difficulty and whom we would resent if they did not help. I agree that we are grateful to those who help us, but these are often cases where failure to assist should not be met with resentment but with disappointment.

25 In short, when gratitude and disappointment are in place agents purport to cooperate. But cooperation is promoted, rather than presupposed, by hopeful attitudes generating gratitude or disappointment. Thanks to John Greco for forcing me to be clearer on this issue.

26 I say at least some because we do have a norm not to lie that institutes mandatory obligations. It should be noted though that lying is one among many expressions of ill will that can occur in testimonial exchanges.
gratitude are the warranted responses for meeting these standards, disappointment for failing to do so in a manner that does not warrant resentment. I argue in the final section of this paper that the call and response structure that characterises testimonial exchanges institutes reciprocating normative pressures of a kind characteristic of gift economies. It is because it is governed by these social norms that the epistemic practice of testimony offers such a powerful a solution to the problem of cooperation in the sharing of information.

3. Reactive Attitudes and Speech Acts

In this section I show that the speech act of telling that is the typical vehicle of testimonial exchanges should be thought of as an offer of information that is an expression of good will. It is not best understood as the giving of an assurance that is akin to promising. Telling, thus, emerges as a commissive speech act but one that is unlike promising. When offering or promising to do something, the speaker acquires a new normative status in relation to what she offered or promised. If she offered, she has a new reason to follow through; if she promised, she is duty bound to do so. In this regard, offers are less demanding than promises.

To see that in ordinary circumstances tellings are unlike promises, it is helpful to consider examples of exceptional cases where telling is promising. When individuals are called to testify in the context of a trial, they are required to swear to tell the truth, the whole truth, and nothing but the truth. Effectively, witnesses in court promise to tell the truth informatively. In this legal context a witness’s telling addressed at an audience consists

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27 I wish here to remain neutral about whether telling is a necessary feature of testimony. There are in my view ways of transferring knowledge that do not involve telling. For instance, anonymous assertion might be a source of information even though it lacks a recognisable speaker. This consideration though does not settle the issue, since testimony could be identified with a specific means of knowledge transferral that might occur only through telling. See Faulkner (2014, pp. 168-169) for a discussion of this issue. In addition, there might be discursive contexts in which special norms override the normative statuses associated by default with telling. For example, academics are meant to question rather than trust the testimony of other experts.
in the giving of an assurance. Because she has sworn, the witness has acquired a promissory obligation to speak and to do so truthfully.

Arguably, we have this practice because in ordinary circumstances speakers do not have the same duty to tell the truth informatively. Speakers are generally under no obligation to address their audience by means of the speech act of telling. Instead, they typically freely choose to speak out of regard for, or good will toward, their addressees. Further, when speaking, speakers invite the trust of their audience as a fitting response to their actions. By way of contrast, when placed in the witness box, a speaker does not invite others’ trust, instead she authorises the state on behalf of her audience to punish her if she commits perjury.

It might be argued that this description overplays the differences between ordinary and witness testimony. Even in normal circumstances, speakers are under an obligation not to lie. That is, they must be sincere. They must either keep silent or say what they believe to be true. Even if these observations are correct, they do no show that in ordinary testimony speakers give assurances as to the truth of their testimony. In order to give such an assurance, a promise of sincerity would be insufficient. One would also have to promise that one has the right kind of epistemic standing with regard to the asserted content. In short, one must not for example put forward guesses, even when sincerely believed, as testimony. Witnesses are obliged under oath not to present guesses or hearsay as truth. Speakers in ordinary circumstances are not equally duty bound. The fact that addressees usually are disappointed in, but do not resent, speakers who are prone to misspeak or assert mere hearsay shows that these speakers have not violated some duty toward us (since a propensity to behave in these ways does not excuse this behaviour or exempt speakers from criticism).

In what follows I first explain the appeal of understanding telling as a kind of promise. Subsequently, I detail the different normative statuses instituted by promising and offering, before defending the view that telling is offering some information in gift to an audience. The analysis of telling as a speech act that is akin to promising can be traced to Austin (1961) but has been more recently elaborated and defended by Moran (2006). According to this view the speech act of telling consists in the giving of an assurance to the addressee. More specifically, S in telling A that p assumes responsibility for her utterance
furnishing A with a reason to believe that p. That is, S assures (or promises to) A that S shoulders the responsibility for the epistemic status of p, so that were A to believe p and p not to be warranted, the epistemic blame would be apportioned to S and not to A. Telling would thus be a kind of promising since it would institute new binding obligations on the speaker successfully to defend the asserted content.

We can paraphrase Moran’s position in the following terms. In his view when S tells A that p, S also implicitly conveys: ‘Trust me! I swear’. By giving this kind of assurance, the speaker takes the responsibility that p has the kind of normative epistemic status that is required to make S’s assertion that p compliant with the norm or norms (whatever these happens to be) that govern assertion. The speaker also confers on her addressee a right or entitlement to hold her responsible for the propriety of her assertion. So that were the assertion not in accordance with the norm(s), the addressee could blame the speaker for violating her obligations.

Even though aspects of the analogy of telling with promising are compelling, it cannot capture the full normative structure of telling in the context of testimonial exchanges. One initial source of worry is the observation that the speech act of telling involves an invitation to trust (Hinchman, 2005). But invitations to trust do not put agents under the same kind of normative pressure that is imposed upon them by promises. For example, a person might refuse to promise to a friend to keep her room tidy, and at the same time invite the friend to trust her that she will do it. This person is refusing to acquire a promissory obligation to be tidy, whilst being prepared fully to commit to tidiness out of her regard for her friend. In this manner one indicates that one will do something not out of duty but out of love or care (cf., Darwall, 2017, p. 43). The person who promises makes herself liable to be resented and blamed if, barring excuses, justifications or exemptions, she violates her newly acquired obligation. The person who has invited the other’s trust also fully commits to the course of action but makes herself liable only to disappointment, shame, guilt or hurt feelings if she lets herself and others down by not following through.

28 That status might be truth, knowledge, or justified belief. See Goldberg (2015) for an evaluation of different positions on the norm or norms that govern assertion.
These considerations suggest that the reactive attitudes of gratitude, gratification and disappointment that are commonly presents in testimonial exchanges are not what one would expect if telling, like promising, institutes mandatory obligations. Instead, these responses seem typical of situations where individuals offer to benefit someone out of a regard for the other person’s interests. In making offers individuals commit to standards and make themselves liable to criticism (but not resentment) if they, without malice or cold-heartedness, fail to meet them. In order to show that telling is like offering something and unlike promising, more needs to be said about these two kinds of speech act.

In what follows I describe the normative statuses that are instituted by these speech acts and argue that the pragmatic analysis of telling shows that it is an offer of knowledge, truth or justified belief rather than a promise that one told the truth (or that what one told is knowledge or justified belief). I borrow from Kukla and Lance (2009) the vocabulary of constitutive goal and normative output to characterise the pragmatics of speech acts. The constitutive goal of a speech act is the state of affairs that comes to pass if the speech act is wholly successful. The normative outputs of a speech act are the changes in normative statuses that are instituted by the speech act. This framework is helpful to clarify how making an offer differs from promising.

Both promises and offers are in Austin’s terminology commissives since they are ways in which a speaker commits to a course of action. Offering to \( \Phi \) and promising to \( \Phi \) have the same constitutive goal since if the offer or promise is fully successful then the speaker has \( \Phi \)-ed. These speech acts differ in their normative outputs. When a speaker promises to \( \Phi \) she acquires a \textit{ceteris paribus} mandatory obligation to \( \Phi \). Her addressee acquires an entitlement to hold her responsible for \( \Phi \)-ing, and to resent her if she does not. When a speaker offers to \( \Phi \), rather than promises to \( \Phi \), she acquires a discretionary obligation to \( \Phi \).

The notion of a discretionary obligation might seem an oxymoron since if something is a matter of discretion it is not obligatory. I use this expression to convey the idea that the person who makes an offer to \( \Phi \), acquires a reason to \( \Phi \) and makes herself liable to criticism if she does not \( \Phi \). But this criticism is not of a kind that is warranted by the violation of a mandatory obligation. Her addressee is not entitled to resent \( S \) if she does not \( \Phi \). He is
entitled to express disappointment in S since she committed to Φ-ing, and her failure (barring excuses, justifications or exemptions) reflects badly on her.

The difference between promises and offers mirrors the relation between orders and requests. This analogy might help to further clarify how offers are related to promises. Ordering someone to Φ and requesting that she does have the same constitutive goal since if they are fully successful the addressee Φ-es. They differ however in their normative outputs. The recipient of an order acquires a mandatory obligation to Φ so that she can be blamed if she does not. The recipient of a request has the discretionary power not to accede to it, nevertheless she acquires a reason to Φ, that is to say a discretionary obligation to do so. Hence, the person who issued the request cannot blame the addressee for not Φ-ing. He might however be disappointed in her if she refuses his request.

With these distinctions in place we can return to the examples of disappointment and gratitude in response to testimonial exchanges discussed in section two above. I submit that these cases are not easily explicable if telling like promising institutes mandatory obligations.

Consider first the example of testifier disappointment. In this case A does not take S’s word but instead checks for herself because A is of a sceptical disposition or simply because A hopes that S has made a mistake. In response S is disappointed in A. Contrast this reaction with a case where a promissee behaves in ways that indicate that she does not think that a promissor will do as promised. Suppose S promises to A that she will bring the cake to the party. If S finds out that A has bought the cake herself, S would resent A rather than be disappointed in her. S would find it offensive that A presumed S would not fulfil her promise. Ceteris paribus, it is insulting rather than disappointing when others without good evidence presume that one will not fulfil one’s promises. On the contrary, it is only disappointing rather than insulting when others without good evidence do not take one at one’s word provided that their behaviour is not motivated by ill will or insufficient regard toward one.

Similar observations can be made about the disanology between breaking a promise and the example of audience disappointment. In the latter case A believes S, but S lets A down because S’s testimony is the result of carelessness or gullibility. In such case, A might
be disappointed in, without resenting, S provided S has shown no ill will toward A. The natural reactions to breaking a promise out of carelessness are different. Suppose that S promises to A to bring a cake, but does not fulfil her promise. In response, barring excuses, justifications or exemptions, S resents A. Carelessness is not, in this case, an excuse that would warrant replacing resentment with disappointment. Further, if a person is poor at promise keeping, those who know her track record are likely to stop relying on her. They do not, however, stop resenting her unless they come to believe that she is constitutionally unable to keep a promise. Again, the reactive attitudes that are at home in testimonial exchanges are different. If A takes a speaker S at her word, and ends up being disappointed because of S’s occasional or permanent carelessness, A does not generally resent S but feels let down. In short the reactions of hearers to a speaker they trusted who lets them down are different from the responses that befit those who carelessly break their promises.

I have pointed out in section two that the most common reactive attitude to testimony is gratitude. This reaction is only rarely at home in response to promises. Most commonly, we are not grateful to people merely for keeping their promises, although out of politeness we might thank them. There are times, however, when we are grateful to people for their promises. In these cases we might be grateful for the offer of a promise, when they were under no obligation to do so. On other occasions, we might also be grateful that things turned out as someone promised they would. We are especially prone to this response when we believe that it is not fully in that person’s gift to deliver on the promise. Finally, rarely, we are genuinely grateful to people for delivering on a promise. Typically, this happens when we treat people as being partially or wholly exempt from promise-making because they are seriously deficient in, or lack, the capacities required to keep their word. In these cases we take these individuals as not being fully capable of promising, and read their words as indicating that they aspire, rather than promise, to deliver and thus are grateful when they do. Hence, for example, we might be grateful when a child keeps her promise, whilst we are not prepared to resent her if she does not. By way of contrast, genuine gratitude rather than mere politeness is in ordinary circumstances the most common response to testimony.

It might be objected that my account of telling as the offering of information must be wrong since the audience blames the speaker, if, having trusted the speaker, the
audience believes something false. These attributions of blame are not predicated on the quality of the regard that the speaker has for her hearers. Even if the speaker is well-intentioned she is a suitable target for reproach, if she has shared information of low quality.

This objection is in my view predicated on a confusion between epistemic and moral blame. If S tells A that p, and A believes that p because A trusts S, were p to be false or indefensible, A is epistemically blameless for her belief unless she had evidence available to her pointing to S’s unreliability or untrustworthiness. S might instead be epistemically blameworthy for her belief that p if, for instance, she has been careless in acquiring it or could not offer any consideration in its support. Thus, when we say that in the case of testimony, an audience is entitled to hold the speaker responsible for the epistemic status and defensibility of the asserted content, it is epistemic responsibility and thus epistemic blame that we have in mind.29 Failure in this kind of responsibility does not warrant resentment or punishment.30 We do not resent people for their false or careless beliefs. Instead, we might be disappointed in them and be disposed to criticise them for their shortcomings. By the same token, we are not grateful to people because they have exercised epistemic responsibility when acquiring their beliefs. By contrast we resent individuals who betray our trust or who refuse our testimony in ways that are insulting. We are also grateful to those who share information with us.

These differences in reactive attitudes point to different kinds of appraisals. The responsibility-responses that are appropriate in response to blameworthy belief acquisition

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29 Speakers’ epistemic responsibility comprises a commitment to having the correct epistemic standing vis à vis the asserted content and to be answerable to legitimate challenges. I have elsewhere labelled these as the accountability and answerability commitments that are partly constitutive of a speech act as an assertion (Tanesini, 2016). I now think that I was wrong to suggest that speakers’ commitment to sincerity was a third commitment alongside these two. We are warranted to resent insincere speakers but we are not equally warranted in resenting speakers who fail to discharge their accountability and answerability commitments. In Kukla and Lance’s (2009) terminology there are agent neutral and agent relative (or second-personal) dimensions to the normative inputs and outputs of the speech act of telling. The accountability commitment, for example, institutes a mandatory obligation that might be thought as flowing from agent-neutral normative inputs to the speech act of telling. The discretionary obligations that are my focus here pertain to the agent-relative dimension of telling. I now also have reservations about using the accountability label for one of the two commitments that are partly constitutive of assertion.

30 This point is ably defended by Brown (2018).
or retention are those characteristic of attributability responsibility. That is, a person is epistemically blameworthy for her belief only if some bad character trait attributable to her has caused her to acquire or retain the belief in question. Dogmatic beliefs and beliefs that are carelessly acquired would be examples of beliefs that are blameworthy in this distinctive epistemic sense.

The responsibility-responses that are appropriate in response to trust and trustworthiness are those characteristic of accountability responsibility. When individuals are blamed for their untrustworthiness or distrust they are evaluated for the quality of their care for other people. These evaluations of blame that target the regard that one has for others are distinctly moral. They usually signal that the blameworthy person has wronged the other party in the exchange, who legitimately resents the wrongdoer.

Thus, in response to the objection, it is not true that, if a speaker S tells that p to an audience A who believes that p on S’s saying so, A blames S in a sense that licenses resentment were S to be found to have acquired p in an epistemically careless fashion. Instead, A’s blame would be expressed by way of the kind of criticisms and reactive attitudes that are consonant to epistemic blameworthiness. These considerations are orthogonal to the kind of responsibility responses with which I am concerned. My focus here is on the reactive attitudes that fit trust and trustworthiness. These are accountability responses including resentment, disappointment and gratitude.

To summarise, I have argued that the reactive attitudes that are natural responses to the giving and receiving of testimony indicate that tellings have the normative outputs of offers rather than promises. Whilst when promising one acquires a mandatory obligation to do as promised, offers institute discretionary obligations. When offering one fully commits to fulfil the offer, but one is not liable to be resented if one falls short provided that the failure is not attributable to ill will or a lack of due regard.

31 They also involve responses characteristic of answerability responsibility including calls that one defends one’s judgements. See Shoemaker (2015) for an account of attributability, accountability and answerability as different kinds of responsibility identifiable by the different kinds of reactive attitudes they give rise to.

32 The considerations supply the groundwork for assessing whether trusting a speaker supplies an epistemic or a practical reason for believing what a speaker says. I set this thorny issue aside.
4. Gift Economy and Norms of Reciprocity

I have argued so far that the pragmatics of the speech act of telling that is the main vehicle of testimony and the kind of reactive attitudes that are fitting on the part of both giver and recipient of testimony point to thinking of the transfer of epistemic goods in testimony as a kind of offer. In what follows I argue that the offer of testimony is best understood as the offer of a gift rather than a market transaction driven by utility maximisation. If this is right, one may speculate as to why a testimonial practice governed by these norms has emerged and how it can solve the problem of cooperation. To answer this question I present briefly some key features of gift-exchange games before suggesting that these are present in our practice of testimony. Subsequently, I argue that social norms relying on good will are especially suitable to solve the cooperation problem with regard to non-rivalrous goods. In addition, these norms supply incentives to knowledge acquisition.

I have argued that tellings are offers. Offers, however, can be somewhat varied depending on the nature of the commitments they involve. One can offer to do something for someone; one can offer a price in the purchase of a good. One can make an offering in the form of a giving of a gift. Tellings are best construed as offers of this last kind since they are the means of transferring a valuable good – information - without expressly asking for anything in return. Understood in this way tellings are acts of offering information as a gift.

Practices of gift exchanges have attracted significant interest in anthropology (Mauss, 1990). More recently, ethnographers and economists have studied the behaviour of human actors noting that people often violate the axiom of selfishness since they do act in ways that do not maximise their self-interest. For example, there are individuals that treat Ultimatum games as they would the sharing of a gift because in a situation in which utility theory dictates that they make as small an offer as possible, they offer instead over half of the total amount.33 It would seem that these participants treat the game as an opportunity

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33 In an Ultimatum game there are two anonymous participants engaging in one interaction. There is a fixed total pay off and one participant is instructed to offer to the other a portion of it. The respondent can accept the offer, or reject it. If she accepts she gets what was offered. If she rejects, neither gets anything. Under these conditions, if participants seek to maximise their payoff, it is rational for the respondent to accept any
to make a gift without a binding agreement about what they can expect in return (Henrich et al., 2004). Their respondents often reject the generous offer in order not to feel committed to be generous to their benefactor (Bicchieri, 2006).³⁴

For my purposes what is essential to the exchange of gifts is that the donor makes an offer that can be described as generous since it is an offer that benefits the recipient without guaranteeing a return for the donor. Another crucial characteristic of gift giving is that it institutes relations of indebtedness. That is, although the exchange of the gift does not strictly speaking and legally obligate the recipient to match the gift with another of at least equivalent value, the social norms governing these exchanges incentivise the recipient to discharge the debt of generosity she has incurred by being generous in return. This feature of gift exchanges makes them very costly to recipients because what they have a reason to reciprocate is the generous gesture. In this context, donating a gift of equivalent value might feel ungenerous. There is therefore a pressure to exchange gifts of increasing value among agents who engage in repeated exchanges. In this way, it is possible to become bankrupt in the attempt to keep up with one’s generous friends. For this reason, in some societies people avoid putting themselves in a position where others might make them a gift or offer help (Bicchieri, 2006).

I have argued that testimony involves the making of offers that create discretionary obligations, among these are the discretionary obligation to reciprocate the generous gift of information. Individuals in the receipt of testimony are expected to show gratitude because the good that they have received was voluntarily and generously given. They are also expected to reciprocate by serving themselves as donors of testimony. This structure of discretionary obligations to reciprocate that finds expression in positive reactive attitudes of gratitude and gratification is exactly what one would expect if our norms of trust and trustworthiness regulated a system of gift exchanges rather than market transactions.

The adoption of social norms consistent with treating the exchange of some goods as gift-giving can provide a solution to the problem of cooperation. The problem in its original formulation presupposes agents who seek to maximise their preferences, but agents who

³⁴ Thus, they appear to ignore the fact that there will not be an opportunity to reciprocate.
follow the social norms of gift giving have different motives since they think that they have reasons to give generous gifts and reciprocate any gift that they have received. So the adoption of these norms solves the problem in its original formulation. The details of the solution would differ from the account of it supplied by Faulkner (2014). On his view the norms of trust and trustworthiness are imperatives that institute mandatory obligations. The norms themselves are sustained through the negative incentives of punishment and resentment. In my account these norms set standards to which we commit in aspiring to meet them. The norms themselves are sustained by the incentive of gratification and the disincentive of disappointment.

Interestingly, a problem similar to that of cooperation can be reformulated in the context of gift economies. This is the problem of parasites invasion. That is, why should we expect a society governed by gift giving practices to preserve its customs when faced with a group of people who exchange initial gifts and then defect? The nature of gifts themselves might provide an answer. Usually, the transfers of gifts is highly inefficient since the donor gives away something that is more valuable to her, than it is to her recipient. Some gifts are also perishable so that they cannot be recycled by parasites. This explains some of the most common features of items that people gift. Flowers are perishable and thus cannot be re-gifted. Others goods cost more to the donor than the use value they have for the recipient. This category includes gifts of purely decorative items. It is these inefficiencies that are disincentives to parasites thus preventing their invasion (cf., Carmichael & MacLeod, 1997).

Something akin to exchange inefficacy is evident with regard to testimony. When a person gives information to another, the recipient of testimony acquires an epistemic good. The testifier loses her positional advantage but she does not lose knowledge. It is in this sense that knowledge, unlike positional advantage, is not a rivalrous good. So in the case of testimony the testifier loses positional advantage but the recipient does not gain it, while the recipient gains information that the donor already had but does not lose.35 This makes testimonial exchanges different from standard market transactions where a seller transfers property of a good to a buyer who in turn transfers another good (usually money) to the buyer. It also makes the transaction inefficient since positional advantage might be the most

35 In addition the donor gains the gratitude of the recipient that induces self-satisfaction in the donor. But this process does not seem to involve the transfer of a good.
valuable good possessed by the donor. This good is lost by the donor (in relation to that recipient) without being gained by the recipient (in relation to that donor).\textsuperscript{36}

The non-rivalrous nature of epistemic goods might also explain why we engage in their exchange rather than avoid situations where we risk incurring unrepayable debts of gratitude. The person who gifts to another a piece of information does not lose the ability to make the same gift to another individual. This greatly reduces the risk of being made an information pauper by discretionary obligations to exchange information generously with everyone who generously exchanges it with us. Further, the existence of pressure to make bigger and greater gifts of knowledge to other members of the community serves as an incentive to seek to acquire more knowledge. The motivation to learn more so that one can tell others is epistemically desirable. The creation of this motive is another reason why societies that adopt norms regarding the transfer of information that belong to the economy of the gift would be epistemically better off than those that do not.

In conclusion, the natural reactive attitudes of gratitude and gratification surrounding testimonial exchanges support the view that telling is a speech act that is closer to an offer of a good than to a promise of a good. If this is right, we should think of testimony as a form of gift exchange rather than a market transaction governed by principles of preference maximisation. Finally, since knowledge is an epistemic good that is not rivalrous and can be expanded, the incentive of reciprocation and generous giving typical of the gift economy generates a better solution to the problem of pooling information than practices based on punishing defection because it also incentivises the creation of more knowledge that can be generously donated.\textsuperscript{37}

REFERENCES

\textsuperscript{36} They might however both retain positional advantage over third parties.
\textsuperscript{37} I would like to thank participants and organisers of the 2018 Chambers conference (University of Nebraska), and of two workshops at the University of Bristol and Cardiff University for their comments. My special thanks to an anonymous reader, David Henderson, Lizzie Fricker, Sandy Goldberg, John Greco, Mona Simion and Terry Horgan for their probing comments and helpful suggestions.


