

Why Elsa Asks From When He Came An Epistemological Analysis of Richard Wagner's *Lohengrin**

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1 *Introduction*

There are two sources of suspense in Richard Wagner's opera *Lohengrin* that propel the action forward, both having their roots in uncertainty. The uncertainty in act 1 pertains to Elsa—whether or not she is guilty or innocent; the uncertainty in acts 2 and 3 to Lohengrin—who he is, from where he comes. Throughout, it is, however, not the first-order uncertainty itself that creates the tension since Wagner's music reveals the truth to the audience in both cases: neither can there be doubt about Elsa's innocence when she falls into prayer, nor about Lohengrin's holy nature when he enters the stage (drawn by his swan). Rather, the suspense originates from ancillary questions: in act 1 from whether Elsa's innocence can be proven, in acts 2 and 3 from whether Elsa can keep her promise not to ask the *forbidden question* about her new groom's identity. In the end she can't and disaster ensues.

Positing problems of uncertainty, doubts, and beliefs at its core the opera lends itself naturally to an epistemological analysis—a rigorous analysis, based on the laws of logic, of the characters' knowledge and beliefs. The goal I pursue in this article is to provide such an analysis and discuss its implications for the understanding of the opera. My claim is that the epistemological analysis of the central characters' belief systems provides a new psychologically convincing interpretation of why Elsa, ultimately, breaks her word, steering

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the opera towards its tragic end. It also sheds new light on the trial-by-combat, the climactic scene of the opera's first act and shows how intricately it is linked to the rest of the plot.

The literature presents a uniform view on why Elsa succumbs to the temptation of asking Lohengrin about his identity. Essentially, it is claimed that no one could ever bear such uncertainty—that it is simply not humanly possible to live with a partner in love and marriage without knowing his 'Nam und Art'. I will challenge this claim. More specifically, I will argue that this reading either rests on an extremely naïve view of the theatre (of course, nobody *in real life* would marry somebody who refuses to say their *name*) or on equally naïve psychology (the 'pulp' psychology of the *who-* or *howdunnit* to be precise). In its stead, I will offer an alternative interpretation that is not only psychologically more convincing but has the added advantage of showing that the ordeal in act 1 does not only serve as dramatic spectacle but plays in integral part for why Elsa finally succumbs.

One of the key steps of my analysis relies on a class of celebrated results in game theory, sometimes called *agreement theorems*, and I devote some space on explaining these results in non-technical terms before I apply them to the opera. Their basic lesson is simple enough: they prove that, when something is at stake, rational individuals cannot permanently agree to disagree. It turns out that this has a number of important implications for the trial-by-battle scene in act 1 that, in turn, are crucial for the action in the two subsequent acts.

My analysis will reveal what the opera's central characters can know at different stages of the plot about its two big unknowns, Lohengrin's 'Nam und Art' and Elsa's innocence or guilt. Crucially, it will also reveal *who knows what about what others know* about these two questions and I will argue that Elsa's psychologically most forceful reason to break her promise lies buried in such a *second-order belief*—in what she can know about what Lohengrin knows or doesn't know about her. This analysis also highlights the intricacies of Wagner's plot construction. The opera's two central questions that establish the themes of uncertainty and doubt do not simply elegantly mirror each other, rather they are subtly intertwined, thus, generating true Aristotelian unity of plot.

I will proceed as follows. Introducing the notion of first-order and second-order beliefs I will discuss the flaws in the usual interpretation of Elsa's behaviour in Section 2. It follows a brief interlude explaining the logic of agreement theorems that will be applied to Wagner's opera in

Section 3. Section 4 will revisit Elsa's uncertainty revealing the full depth of her psychological anguish that drives her to asking the question. Section 5 concludes by discussing Wagner's construction of the overall plot as well as the general relevance of second-order beliefs in drama.

2 *Why Elsa can resist*

Regardless of whether *Lohengrin* is seen as an opera about the impossibility of human contact with the numinous (with Schiller's *Semele* and Kleist's *Amphytrion* as predecessors)¹ or as a drama about the absolute artist or, indeed, as an expression of Wagner's xenophobia, the literature never spends much more than a couple of paragraphs on why Elsa breaks her promise and asks the forbidden question—despite the terrible consequences with him leaving and her dying.² Almost invariably, it is simply *posited* that not knowing your spouse's 'Nam und Art' is unbearable.³

But is it? Of course, in real life nobody would marry a partner without knowing their name but this is an opera and the interpretations are not that naïve. What Elsa's ignorance of

¹ See Borchmeyer (2003) for a careful study of the opera's literary predecessors.

² Of course, there is, as always in Wagner, at least some redemption. As Donington (1989, p.20) puts it: "In *Lohengrin*, asking the forbidden question converts Elsa's dreamlike fantasy of the knight in shining armour into the much solidier actuality of her recovered brother, redeemed at least from his enchanted state." Since Elsa cannot anticipate this consequence of her question, the freeing of her brother can, of course, not be her motive for asking it.

³ This footnote can only offer a small set of representative examples (and a couple of dissenting views). Newman (1949) sticks very much to a literal reading of Elsa's probing in scene 2 of act 3. She asks because she fears that "as by magic he had come to her, so by magic he may be taken from her" (p.159) Dahlhaus (1971/1996, p.65) claims Lohengrin's demand is "impossible to fulfil", in particular in the realm for lovers of "human proportion." Pahlen (1982) calls Lohengrin's demand "inhumane" and "bordering on the impossible" and finds Elsa's breach "typically female" (p.261)—suspecting Lohengrin might be in trouble she desperately wants to help him. Nike Wagner (1998, p.87) claims Elsa "must ask the question" since love requires "sensual certainty" and is not "abstract emotion." Also referring to the sensual Emslie (1993) argues that Lohengrin's conditions "cannot be reconciled with the mundane nature of marriage" and that Elsa, by asking the question, "asserts the importance of the sexual couple as a collective identity over that of the single male hero" (p.171). There are only a few alternative readings. Zizek (1996) offers the view that Elsa "intentionally asks the fateful question and thereby delivers Lohengrin whose true desire, of course, is to remain the lone artist sublimating his suffering into his creativity" (p.30). Finally, Borchmeyer (2003) argues that it is her dread of the numinous that "inspires in Elsa an insane and self-destructive desire to know her husband's true identity" (p.150).

Lohengrin's name and origin *signifies* is her uncertainty about Lohengrin's true nature, the extent of his love, the truth of his feelings, the seriousness of his commitment. While we all would like to have perfect certainty about these qualities in our partners hardly anyone does. If you are married, think back to what you really knew *for sure* at the altar. Were you really sure about your spouse's 'Nam und Art'? Were you absolutely certain that he or she would never hurt you? That he or she would be with you in sickness and in bad times? Perhaps you are divorced today. If you live in Wagner's homeland, statistically, you are with a probability of 40%. How could that happen? How could you go so wrong in your beliefs about your spouse and how your life together would work out?

Simple empiricism reveals that uncertainty about the other's *true inner nature* is the norm in human interaction. We rarely know things *for sure*. In fact, there are even all sorts of forbidden questions—questions that are forbidden by social norms and customs or whose ban is enforced through internalized shame. Perhaps it would have been revealing had you asked your (now divorced?) spouse whether he or she ever engaged in ————— ... It is all too easy to complete this question in a manner that would make it both, very informative, if answered honestly (a *big if*), and impossible to ask.⁴ Moreover, in many cases people do not even know their own true character before it is really tested. Who can be sure what he would really do if, say, he and his partner were attacked by a gang of brutal thugs? Who knows whether they would fight to protect their partner or, perhaps, dare I say it—it is a nightmarish thought—run?

Our beliefs about the world, about how others are, about who did what, are *first-order beliefs*. This is in contrast to second-order (or higher-order) beliefs which are beliefs about others' beliefs and which we will discuss in more detail in Section 4. What is important here is to note that the suspense that is derived from first-order beliefs is the suspense of genre fiction, of the *whodunit* and *howdunnit*, genres that are considered "trivial" precisely because their main driver, the uncertainty about the true state of the world, is trivial in nature and does not generate what is considered to be high drama. High drama, I will argue below, always relies on problems of higher-order beliefs.

⁴ It would be interesting to study where in real life such forbidden questions come from, or to uncover the evolutionary forces of shame that renders them forbidden, but for our purposes here this is irrelevant.

While we have established that it is completely normal to have some uncertainty in one's first-order beliefs about one's spouse it is not yet clear that Elsa is psychologically fashioned to bear such uncertainty as well. Perhaps Elsa is a particularly weak character or taken from realm of 'pulp fiction'? To answer that question we briefly need to recall the opera's second act in which Ortrud spins her intrigue and tries twice to plant the seed of doubt in Elsa. These two attempts differ very much in their nature, which is important for our analysis. Here is the first attempt.

ORTRUD: *Let me warn you/not to put too blind a trust in your happiness;/lest you are ensnared by misfortune,/let me look into the future for you.*

ELSA: *What misfortune?*

ORTRUD: *Could you but comprehend/the wondrous origins of this man;/may he never leave you/as he came to you: by magic!*

ELSA: *Piteous creature, can you not understand/how a heart can love without harbouring doubts?/Have you never known the happiness that is given to us by faith alone?*

When Ortrud appeals to Elsa's (first-order) uncertainty about Lohengrin's faithfulness, Elsa is not shaken at all. Despite not having perfect knowledge of his 'Nam und Art' she is able to love and willing to marry with full confidence since her *heart can love without harbouring doubts*. Ortrud's first attempt fails. Elsa can resist.

This will be different when Ortrud, who understands human psychology all too well, tries again. In her second attempt Ortrud switches track. Instead of playing on Elsa's (first-order) doubts she revisits the climax of act 1, the trial-by-battle in which Lohengrin vanquished Telramund.

ORTRUD: *Back, Elsa! No longer will I suffer/to follow you like a maid!/(...) you shall humbly bow down before me. (...)*

ELSA: *How can you arrogantly claim precedence over me,/you, spouse of a man condemned by God?*

ORTRUD: *False judgement may have banished my husband,/(...) But your husband (...)* Can you tell us whether he is worthy (...)*No, you cannot! For to do so would cause him great anguish—/thus did the guileful knight forbid the question!*

ELSA: *You blasphemer! (...) Did not my worthy champion, with the help of God,/beat your husband in battle?*

ORTRUD: *Ha, the innocence of your champion/would soon be tarnished/if he had to tell of the magic/that gives him such power!*

Ortrud claims that Lohengrin has won the ordeal using magic powers and, as we shall see below, this thought must have terrible consequences for Elsa—because this thought generates some crueller uncertainty, uncertainty that is rooted in *second-order beliefs* that are at the heart of all high drama. Before I can substantiate this claim, it is necessary to go back to the ordeal itself, to analyse its epistemological consequences. And before I can do that I first have to introduce a celebrated class of results in epistemological reasoning.

INTERLUDE

A brief introduction to agreement theorems and Bayesian updating

Our beliefs about the world—about others, about society and nature—are a key determinant for our actions. If Jack has agreed to meet Jill at 3pm at the entrance of a train station and Jack tries to make sure to be there on time, perhaps, because of some delays, even *runs* the last mile or takes an expensive taxi, then because he believes Jill will be there on time as well. If Jill asks Jack to look after her child while she is out, then because Jill believes Jack can be trusted. If Jack buys some stocks, then because he believes they will pay high dividends or rise in value. All goal-oriented behaviour is, explicitly or implicitly, driven by some such beliefs about the actor's environment.

While beliefs about the world can and often will have their root in idiosyncratic experiences, simple general laws of logic govern how we rationally adjust them when we receive new information. If I believe that it is very likely the sun will shine at 3pm and I can see large black clouds coming toward me at 2.45 I will lower my expectation for it being sunny at 3.

The adjustment of beliefs to new information is known as *Bayesian updating*, after the British mathematician and Presbyterian minister Thomas Bayes (1702 – 1761) who showed in a posthumously published paper how *conditional probabilities* can be computed. Conditional probabilities are, of course, the object we have in mind when we talk about beliefs that have

been adjusted to news. If a piece of news arrives, the probability of something being the case has to be recomputed *conditional* on the news having occurred. This very process where a *prior* belief is transformed into a conditional or *posterior* belief is the process of Bayesian updating. While this may sound rather technical, Bayes' formula is astonishingly simple and easy to use. Moreover, a moment of reflection reveals that we are all well trained in such updating (even if we don't do it by plugging numbers into a formula but rather intuitively). Just think, for example, about a girl, Jill, who has fallen in love with a smart and pretty boy, Jack. Jill will have a prior about how likely it is that Jack loves her, too. But each and every time when he returns her look (or doesn't) or returns her call (or doesn't) Jill will think what this implies for her, no pun intended, posterior ... Similarly, investors are used to updating their beliefs about the economic potential of firms in response to the arrival of new technologies; voters update their beliefs about the integrity of politicians after rumours about corruption; and mothers and fathers agonize about the health and safety of their children when they aren't coming home at night. As different as these problems are, the logic of using new information to adjust one's beliefs is always the same.

New information can arrive in many different disguises. It can be new factual knowledge (about an event having taken place that makes the event I am interested in more or less likely) but it can also arrive in the form of other people's beliefs. If Jack observes Jill selling the stock he wanted to buy he can infer from that that Jill believes the stock will pay low dividends after all or fall in value. Hence, Jill must know something that Jack doesn't and even if Jack might not immediately know what this something is he will take into account that there must have been some bad news about the stock and, hence, lower his expectations about its performance.

For the epistemological result we want to apply to Wagner's *Lohengrin* it is the latter type of reasoning we need to study in more detail. Let's do this by example.

Consider two people, say, for a change, Bob and Nancy, who have, both, some reliable information about tomorrow's weather and who think about betting each other. The weather has two dimensions: It is either sunny or rainy and it is either warm or cold. Altogether there are four different types of weather, sunny and warm, sunny and cold, rainy and warm, and rainy and cold. While Bob has devised a failsafe method to forecast temperature, Nancy has perfected the art of cloud watching and knows whether it will be sunny or rainy. We can now

analyse whether the two can *agree to disagree* and bet on tomorrow's weather. For example, consider the bet where Nancy wins \$30 from Bob if it's sunny *and* warm while Bob wins \$10 from Nancy in all other cases.

If both Nancy and Bob are rational and if both know that they are and if they know that they know (and so on) it is easy to see that they will never agree to bet (regardless of the precise monetary amounts at stake). The fundamental reason for this is that, if Nancy is willing to bet, Bob can learn something from this about tomorrow's weather that he previously did not know (and vice versa). This is easy to see since, surely, Nancy (who knows whether it's going to be sunny or rainy) wouldn't bet on the weather going to be sunny and warm if she knew that it's going to be rainy. Hence, if Bob hears from Nancy that she is *willing* to take the bet, he can be sure that it's going to be sunny. Consequently, once Nancy offers the bet Bob knows exactly what the weather will be. (He knew whether it's going to be warm or cold from the start and he can now infer from Nancy's willingness to bet that it's going to be sunny.) Of course, Bob will only accept the bet if he knows that it's going to be cold. So if Bob agrees to the bet that Nancy proposed, Nancy learns from Bob's acceptance that it's going to be cold after all and that, therefore, she will lose the bet. (She obviously can't win the bet against somebody who precisely knows tomorrow's weather.) Hence, she would prefer to retract her offer. Going back to the beginning, when Nancy contemplates whether or not she wants to offer this bet to Bob she will, thus, realize that the only scenario where Bob accepts her offer is one where she will lose for sure. Consequently, she will never offer the bet in the first place. Similar chains of reasoning can be constructed for *any* other bet. In a rational world, Bob and Nancy will never bet on the weather. In fact, they will never bet on anything.

Such no-betting results have been proven for extremely general setups.⁵ The theorems come in a variety of flavours but the basic underlying logic is always the same. If something is at stake, we simply cannot afford to ignore the information that is contained in other people's beliefs.

⁵ See, for example, Aumann (1976), Milgrom and Stokey (1982) or Sebenius and Geanakoplos (1983).

3 Epistemological consequences of the ordeal

In a trial by combat, as witnessed in the first act of *Lohengrin*, the combatants' lives are at stake. In such a trial two contestants fight to establish the innocence or guilt of somebody who has been accused of a crime. One contestant champions innocence, the other guilt. They fight and—since the trial is a *judicium Dei*—the champion of the truth will win, his opponent fall.

In old English such trials are referred to as 'wagers of battel' offering a linguistic clue to their kinship with simple bets as studied above. *If* one believes the trial to be decided by the judgement of God and the judgement of God alone the trial is indeed nothing but a bet on the true state of the world.

Of course, *ex ante*, before the trial is called both contestants may have good reasons to believe that they champion the truth and, hence, will win—simply because they may have access to different evidence, to different *private* information supporting their beliefs. But, crucially, when one contestant, say the 'cavalier of innocence', observes that the other is also willing to fight, he must realize that the other, the 'cavalier of guilt', is only willing to fight because he, too, has some private information—supporting the defendant's guilt. Thus, the other's willingness to fight reveals some information the cavalier of innocence did not initially have access to and he must take this information into account. Of course, even then he might still believe, on balance, in the defendant's innocence and, thus, might still be willing to fight, perhaps, because the evidence he started with was very strong. But this, in turn, would now present a very strong piece of information for the second contestant, the cavalier of guilt. If the cavalier of innocence is willing to fight even though he knows that the cavalier of guilt is also willing to fight, he must have some really strong evidence in favour of the defendant's innocence—which now provides valuable information to the cavalier of guilt. Such a process, where both announce their willingness to fight and then reiterate it repeatedly, may continue for a while but, eventually, so the lesson of the agreement theorem, it must lead to a point where one of them decides to drop out. In a rational world, the two knights will never fight—in a rational world where both believe in God that is.

In the first act of *Lohengrin* we observe, of course, the breakdown of the agreement theorem and it is revealing to examine this breakdown in more detail. Previous authors have

commented on Telramund's ignorance. While all bystanders appear to notice Lohengrin's godly powers (*What sweet and blissful trembling comes over us!/What blessed power holds us spellbound!/How fair and noble to behold is he/whom such a miracle brought ashore!* sings the chorus of men and women after Lohengrin's arrival and his dismissal of the swan) Telramund appears unimpressed. Is he misreading the signs? The Brabantian nobles feel compelled to warn him: "*Stand down from the fight! If you risk it,/you will never win!/He is protected by the highest power,/so of what use is your brave sword?*"

But, as our analysis reveals, the problem with Telramund goes much deeper. After all, even if Lohengrin were just another human being with some private information in the case of the missing brother a god-fearing Telramund would have to conclude, even if only in the last second before the swords cross for the first time, that the information provided in Lohengrin's willingness to fight overrides his own. In other words, even failing to recognize Lohengrin's superhuman powers a god-fearing version of Telramund would not fight. If Telramund believed in God he would at some stage before the fight commences realize that he is bound to lose. This is a direct implication of the agreement theorem. Hence, we can already conclude in this scene, long before we get more direct evidence of this in act two, that Telramund doubts the existence of god.

The question then arises why the same arguments do not apply to Lohengrin. Why does he fight? Why can he ignore the information contained in Telramund's willingness to fight? The answer is obvious and yet subtle. Because he knows *for sure* that Elsa is innocent. Now, often in everyday language, when people say they are "sure" about something being the case they actually mean that they attach very high probability to that something being true. And for many practical purposes very high probabilities are so close to absolute certainty that the difference does not matter much. Take for example, the probability of surviving a walk in the park or the probability of your house not being hit by a meteor while you are in the park. In such cases the actual probability is very close to 1, close enough for us not to make contingency plans, close enough to ignore the slight uncertainty. But there are some classes of problems where the difference between a probability of 1 and a smaller probability, be it arbitrarily close to 1, makes a huge difference, cases that exhibit a *discontinuity* at 1.

As it happens, the case of adjusting one's beliefs to the arrival of news falls into this class of problems. If I am *absolutely sure* of something being the case I will quite rationally ignore

any evidence to the contrary. A prior belief of 1 simply cannot change. This can be trivially seen in Bayes' formula but is also evident without employing mathematics. If I *know* that it is going to rain at 3pm, it does not matter if I can't see any clouds at 2.45. And if I *know* that somebody is innocent of a crime, I have good reasons to ignore fingerprints or fibre evidence that seem to point to the contrary.

It is precisely the difference between stochastic beliefs (that do not categorically rule out alternative scenarios) and absolute knowledge (of the one and only truth) that makes the difference here. In terms of probabilities this difference can be arbitrarily small but the consequences are large. With stochastic beliefs one *never* ignores new information, with absolute knowledge one *always* ignores such information. Both is rational, both follows from Bayes' rule.

If facing this proposition causes any queasiness then probably because absolute knowledge is such a rare thing in the human realm. How can one *know* that it is going to rain at precisely 3pm? And how can one *know* that somebody is innocent of a crime? In particular if one is, as in the case of Lohengrin and Elsa's missing brother, not an eyewitness?⁶ But Lohengrin is, of course, no ordinary man and we learn later, in his Grail narrative in the final scene of the last act, where his superhuman powers come from. Lohengrin has absolute knowledge. He knows that Elsa is innocent and, thus, knows that he will win the trial by battle. He can rationally ignore the information that is revealed in Telramund's stubbornness. He knows that Telramund will fall and justice will prevail. And it is this absolute knowledge that sets Lohengrin apart from the mortal men and women of Brabant.

There are two reasons why the agreement theorem (that predicts that the combatants in an ordeal should not fight but reach agreement without crossing their swords) would not hold and both are relevant for the ordeal that decides Elsa's fate. One of the combatants does not believe in God, the other has absolute truth. It is important to notice that from the outside it is impossible to tell which of these reasons applies to whom. The only scenario that everybody can logically exclude is that both combatants know the absolute truth. The opposite scenario where both harbour doubts about the existence of God and, hence, think the battle will be decided by strength alone is, on the other hand, perfectly possible.

⁶ In fact, even eyewitnesses are notoriously bad in truthfully recalling the events they have witnessed (see, for example, Wells and Olson 2003).

It is useful briefly to think about who knows what once the battle is over. Elsa knows she is innocent. Lohengrin knows she is innocent. All god-fearing bystanders know she is innocent. And Ortrud knows, of course, too, that she is innocent. The only character who still cannot know be sure of Elsa's innocence is Telramund. This is important because otherwise Ortrud would not be able to manipulate Telramund further in the second act. There, in scene 1, she convinces him that Lohengrin only won through magic which then leads to Telramund's public accusation of Lohengrin—the second time Elsa will be confronted with the thought that Lohengrin might perhaps have fought without having absolute truth but simply because he possessed superior weapons.

This has dramatic implications for Elsa's second-order beliefs. While she knows that she is innocent and Lohengrin knows that she is innocent Elsa cannot—once she entertains the possibility of Lohengrin being a wizard—know that he knows that she is innocent. She knows that he was willing to fight for her but, as we have seen above, there are two possible reasons for why one would: absolute knowledge of her innocence, or doubts about God combined with a superior belief in one's fighting prowess. While Elsa can infer that Telramund falls in the latter category (after all, she knows that he does not know the truth), this does not preclude that Lohengrin harbours similar doubts and simply fought trusting his magic powers. She has no way of telling which of these two possibilities is true.⁷ Hence, Elsa must believe that her groom may believe that, after all, she did kill her brother.

4 *Why Elsa can't resist*

Imagine you were falsely accused of a hit-and-run killing a small child. You stand trial before court. You are terrified. But luckily you are cleared and you return home happily. Then, a few weeks later, you accidentally overhear a telephone conversation during which your spouse

⁷ Except, of course, by listening to Wagner's music that leaves no doubt about Lohengrin's holy nature. This raises the interesting question whether orchestral music in opera is thought to be heard by the opera's characters or only benefits the audience. The chorus of the men and women in scene 3 of act 1 suggests that the holy nature of Lohengrin is visible but not audible. They refer to the "miracle of the swan" and to Lohengrin's beautiful and noble features. "*I feel my heart grow faint/at the sight of this noble, radiant knight!*" they sing but there are no allusions to his music. Yet, for the audience it is unquestionably the music (in particular of the grail motive) that communicates Lohengrin's true character.

makes a remark that may just mean she believes you lied—that she believes: you killed the child and lied about it.

Can you ignore this? Would you be able to continue your life of marital bliss pretending nothing happened? And what if others accuse your wife publicly of harbouring such doubts? Would you still be able to keep your silence, say nothing, live happily ever after? This is precisely what Elsa would have to do. She would have to live with a husband of whom she cannot tell whether he believes in her innocence. If something in this tale is “simply not humanly possible” then it is this. Coping with such uncertainty no one can.

Elsa asks from whence he came because she needs certainty not about her groom’s true nature but about her groom’s beliefs about her innocence. Only by finding out Lohengrin’s true ‘*Nam und Art*,’ his true nature, and his true reason for fighting for her, can she find out whether or not he truly believes in her innocence. She may fear that asking the forbidden question may have terrible consequences but not asking it has terrible consequences *for sure*. She cannot live her life at the side of a man whom she suspects of suspecting her of murder. This is the main result of this epistemological study. It offers a radically different, psychologically convincing answer to the central question that drives two thirds of the *Lohengrin* plot.

Elsa’s uncertainty is pertaining to her second-order beliefs—her beliefs about her groom’s beliefs about her innocence. The example shows intuitively that second-order uncertainty can have profound psychological effects, can cause much deeper anguish than the first-order uncertainty about your groom’s ‘*Nam und Art*.’⁸ Unsurprisingly then, there is a substantial literature in psychology investigating the role of second- and higher-order beliefs. Crucially, the capability of forming second-order beliefs (of recognizing that others do entertain beliefs about the world that may be wrong or false) is a central building block for what psychologists call *theory of mind* (see, for example, Carruthers and Smith 1996). Revealingly, a crucial characteristic of autistic patients is that they do not have theory of mind, i.e., that they do not entertain beliefs about others beliefs (see, for example, Baron-Cohen *et al.* 1985) and it is

⁸ Notice, however, that there is a subtle interaction effect between the two that also makes the first-order uncertainty about what kind of person Lohengrin is much worse. Because, what kind of man would want to marry her *despite entertaining doubts about her innocence*?

precisely this absence of higher-order beliefs that makes social interaction with autistic patients often so difficult.⁹

The role of higher-order beliefs for emotions is almost trivially apparent in the context of drama and fiction as, of course, any emotional response to the uncertain fates of a fictional, dramatic, or operatic character does not rely on the reader's/viewer's own fate but on his beliefs about others' anguish (see Feagin 1997 for a more general treatment of emotional responses to fiction). Similarly, all versions of empathy involve some forms of higher-order reasoning, of understanding that others have emotions and thoughts about the world.

A famous, yet unusual treatise on the role of higher-order beliefs for our lives is Laing's (1970) volume 'Knots'. Laing, a psychiatrist who published extensively on mental illness *illustrates* in this volume (rather than discusses) the power of higher-order beliefs for the drama of human relations in a set of striking poems. In stark fashion, he shows how the unfolding drama of our lives often involves beliefs of remarkably high order.

But already comparatively simple second-order beliefs can be traced as being at the core of a wide range of emotional constructs. Particularly obvious examples include trust and guilt. Take the disappointment expressed when a husband says to his wife "You don't trust me." This expresses the husband's (second-order) belief about the wife's first-order belief that the husband cannot be trusted. Similarly, I may feel guilt if I breach someone's trust because I believe that the other believed that I would reciprocate his trust.¹⁰ Guilt appears indeed more generally related to second-order beliefs, also in other contexts. "I feel guilty because you believe that what I did is wrong."

A particularly common, yet often thrilling, example of the role of second- and higher order beliefs concerns adultery. Here are two statements for illustration. Jill believes that Jack believes she is playing tennis tonight. Jack believes that Jill believes that he is a fool. The example of adultery falls, of course, in the much more general class of betrayal that is in the core of so many real and fictional dramas.

⁹ And it is Asperger sufferers' difficulty in forming such beliefs that makes interaction with them often awkward, an experience many academics are familiar with.

¹⁰ The role of second-order beliefs for guilt in games of trust has been analysed in a number of papers, both, theoretically and empirically by Dufwenberg and co-authors, see, for example, Dufwenberg and Gneezy (2000) or Charness and Dufwenberg (2006).

Finally, take the robust, yet from a naïve perspective puzzling fact, that in the realm of politics the cover up is almost always worse than the crime. This is puzzling only as long as the power of second-order beliefs is not acknowledged. In fact, the example of the cover up nicely mirrors our arguments above. Why is the crime as such not particularly bad? Because we all know that politicians may be crooks. Just as we all know that our loved ones, in the end, may turn out to be cheaters. (Of course, the probabilities may be slightly better for loved ones than for politicians). But what hurts us much more deeply is if we have to believe that the politician believes we are fools. Just as it hurts us infinitely more if we have to believe that our spouse believes we are guilty of a crime.

5 Concluding remarks

This paper offers an epistemological analysis of Wagner's *Lohengrin*. It reveals a psychologically convincing reason for why Elsa really asks from whence he came and shows how subtly the first act of Wagner's opera interacts with the second and third. The ordeal is not just a great theatrical spectacle it is also crucial for understanding the main characters' beliefs that drive the action later in the drama.

While I am not claiming that Wagner was aware of this epistemological structure I believe that the logical tightness of the plot (the coherent interaction of beliefs and emotions that propels the action forward) engenders an intuitive sense of satisfying unity. Quite often, when we feel that plots are unsatisfactory, we are not immediately aware of the fault. Rather it appears we have a good sense of logical cohesion that immediately alerts us if something is wrong. It is tempting to conjecture that we have this "epistemological sixth sense" simply because of the crucial role higher-order beliefs play in our daily lives.¹¹ Those who do not have such a sense (or who, in the sad case of autism, do not even have theory of mind) find social life very difficult indeed.

Theatrical thrives as much on higher-order beliefs as real drama in life does. Stories that focus on first-order beliefs are almost invariably considered trivial. The *who-* and *howdunnits* are

¹¹ Graesser *et al.* (1999) carry out an interesting experiment where readers have to answer questions about "who knows what?" after reading literary short stories.

prime examples and so are the cheap romance novels that thrive on the question whether they will get each other. High drama is different. One can randomly take any great play from one's shelves and a few minutes thought will reveal that it is its epistemological complexity that makes the work so much more deeply thrilling than any a cheap thriller where the characters are only concerned with finding the killer.¹²

While there is a considerable body of work on how epistemology *features* in drama and fiction there are surprisingly few rigorous epistemological *analyses* of works of drama and fiction. One thrilling exception is Roth's (2004) meticulous analysis of *Hamlet*—Shakespeare's play that contains the word "belief" twice as often as his other works. Focussing on the epistemological implications of the 'mousetrap' Roth proves that, contrary to common belief, Hamlet does not achieved true knowledge of the murder. Rather, he acts "despite of knowing that he can never truly know" which renders *Hamlet* the first revenge tragedy where revenge is exacted without certainty—thereby, crossing over into modernity. Roth's work provides an excellent example for the power of the ruthless application of logic to the understanding of a play. I hope the present study provides another.

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¹² Of course, there are some highly complex thrillers that do thrive on higher-order beliefs. A good spy novel is, almost by definition, concerned with issues of betrayal and trust which cannot be understood without analysing higher-order beliefs.

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