Chapter 3
On the Absence of Evidence

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> *Now faith is the substance of things hoped for, the evidence of things not seen.*
>
> (Hebrews 11: 1, King James Version)

Abstract In this paper, I intend to show that the absence of evidence about a claim is not inferentially inert in legal argumentation. Arguing from ignorance is usually taken to be a fallacy, but it can yield two sorts of justified conclusions in a trial: epistemic ones concerning what is plausibly true, and normative ones concerning what should be taken as true. In the former, the absence of evidence generates an argument from ignorance justified by non-deductive standards. In the latter, the absence of evidence triggers a normative presumption. I also show that in both we should not conflate the absence of evidence with the negative evidence provided by some test or research. Arguments from ignorance depend on the absence of certain evidentiary items, not on the evidence of an absence, even though also the lack of evidence is sometimes probative.

3.1 Introduction

In this paper, I intend to show that the absence of evidence about a claim is not inferentially inert in legal argumentation. Arguing from ignorance is usually taken to be a fallacy, but it can yield two sorts of justified conclusions in a trial: epistemic ones concerning what is plausibly true, and normative ones concerning what should be taken as true. In the former, the absence of evidence generates an argument from ignorance justified by non-deductive standards. In the latter, the absence of evidence triggers a normative presumption. I also show that in both we should not conflate the absence of evidence with the negative evidence provided by some test or research. Arguments from ignorance depend on the absence of certain evidentiary items, not

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on the evidence of an absence, even though also the lack of evidence is sometimes probative.

In our ordinary life it is not unusual to infer the truth-value of a claim from the absence of evidence about it. But that is a fallacy. This fallacy is called "argument from ignorance" (*argumentum ad ignorantiam*)[1] and it basically exists in two different versions: first, inferring the truth of a claim from the absence of evidence against it; second, inferring the falsity of a claim from the absence of evidence in favor of it. We might call the two versions *affirmative* and *negative* respectively. Here is an instance of the affirmative:

(A) There is no scientific proof that silicone breast implants are unsafe; therefore, they are safe.

And here is an instance of the negative version:

(N) There is no scientific proof that silicone breast implants are safe; therefore, they are unsafe.

Put as such, both (A) and (N) are fallacious. What kind of fallacy is it? It can be argued that this fallacy belongs to the category of relevance fallacies. The premises are not relevant to the conclusions, because the truth-value of a claim is independent from the evidence about it (and from the absence of evidence also). But don't we ordinarily argue from evidence to truth-values? And don't we often argue from absence of evidence too? I think it is possible to defend some version of the argument from ignorance. And I think that the possibility of justifying at least some instances of it depends on the background knowledge, on the relevant information and on the theory of fallacies agreed upon. However, the present work doesn't aim at upholding an overall theory of fallacies. The only question it deals with is whether the argument from ignorance – as defined here – has a legitimate role in legal argumentation, and when.[2]

I will proceed as follows: after some remarks on absence of evidence and argumentation theory (§2), I will address the saying that absence of evidence is not evidence of absence (§3) and I will finally consider the effect of the legal burdens of proof on the absence of evidence (§4). My main claims will be that, first, we have to distinguish deductive from non-deductive accounts of fallacies; second, we have to distinguish absence of evidence (e.g. not knowing whether there are footsteps in the snow) from negative evidence (knowing there are no footsteps in the snow); and third, we have to distinguish in the field of legal argumentation the uses of the argument that are epistemically justified in virtue of the background knowledge and the relevant information and the uses of it that are practically justified by the relevant presumptions and burdens of proof. Given these distinctions, it happens that absence of evidence *is* evidence of absence; but this only concerns the epistemic uses of the

[1] See Robinson (1971) for several varieties and examples of the argument. Cf. e.g. Walton (1999b, 368, 2008, 57).

[2] To be precise, I focus on its role in adjudication. I leave aside the role it has in legislative debates and political argumentation, where it is often connected to the so-called Precaution Principle.

argument from ignorance, for the practical uses of it do not say what is true or false but, rather, what should be treated as true or false.

3.2 Absence of Evidence and Argumentation Theory

The argument from ignorance is a fallacy from a deductive point of view. This means that, if "inferring" is understood as *deductively inferring*, the inference from the absence of evidence to the truth of a claim (in the affirmative version of the argument), or to the falsity of it (in the negative version), is an invalid one. For the truth or the falsity of a claim is not logically implied by the absence of evidence against or in favor of it.

However, if "inferring" is read as meaning *inductively* or *abductively inferring*, that argumentative move is not necessarily a fallacy.[3] This is common sense. There are cases in which it is reasonable to infer the truth of a claim from the absence of evidence against it, and cases in which it is reasonable to infer the falsity of a claim from the absence of evidence in favor of it. So, if we move from the class of deductive fallacies to that of non-deductive ones, the question we face is how to distinguish the cases in which it is reasonable to draw some non-deductive inferences from ignorance, from those in which it is not. In short, we have to determine when and why that argumentative move is not fallacious any longer.

Now an argument is an inductive fallacy when a weak conclusion is presented as strong, or vice versa. (Here for simplicity I skip considerations on abductive fallacies, which are similar to inductive ones).[4] To put it in a more abstract way, such a fallacy occurs when contrary to appearances the inductive justification standards are not met. That happens when the inductive support given by the premises to the conclusion is disguised, misconstrued, or altered in some significant way.

That could be cast in different terms according to the theory of fallacies and argumentation agreed upon. Locke was apparently the first to use the name *argumentum ad ignorantiam*.[5] Today the argument is usually included in the list of fallacies that theories of argumentation try to cast and explain. Let us consider the pragma-dialectical theory of argumentation, which regards a fallacy as a deficient move in an argumentative discourse or text (not just as an error of reasoning, i.e. not only a violation of logical standards of validity).[6] The authors who support this theory claim that a pragma-dialectical treatment of fallacies provides a more systematic account of them (including in the picture the so-called informal fallacies) than the standard, logical treatment. For, according to the pragma-dialectical

[3] Cf. Wreen (1989, 1996).

[4] On abduction and induction see Flach and Kakas (2000).

[5] See Hamblin (1970, 159–162).

[6] Van Eemeren and Grootendorst (2004). See also van Eemeren (2010, 193–196).

approach, a fallacy is a violation of any of the rules for a critical discussion.[7] On the one hand, this view is taken to be broader than the standard conception, and, on the other, it is taken to be more specific:

> Our view is broader because we do not link the fallacies exclusively to one particular discussion stage, which we call the argumentation stage, in which the reasoning of the protagonist is tested for its correctness. It is more specific because it links the fallacies specifically and explicitly with the process of resolving a difference of opinion (van Eemeren and Grootendorst 2004, 162).

This conception captures more fallacies than others and places them at different stages of a critical discussion. Then, what is wrong with the argument from ignorance? In the context of a conversation, or a discussion, or an exchange of reasons in general, what is wrong is the act of making a statement unsupported by evidentiary reasons. This is related to Grice's maxim of quality (1989, 27): "Try to make your contribution one that is true". This maxim is constituted of two more specific maxims, or sub-maxims: (1) Do not say what you believe to be false; (2) Do not say that for which you lack adequate evidence. The second sub-maxim is what interests us here. It says that we are not entitled to assert something we lack evidence for. Then, from the absence of evidence about p, we cannot conclude to the truth of p nor to its falsity. Frans van Eemeren and Rob Grootendorst (2004, 76–77) rephrase the point claiming that we must not perform any speech acts that are "insincere" (or for which we cannot accept responsibility).[8]

But arguments from ignorance are not always wrong. Douglas Walton has remarked, from the standpoint of a different but similar theory of argumentation,[9] that some uses of that kind of argument are not fallacious. The problem is "how to determine, by some clear and useful method, which are the fallacious and which are the nonfallacious cases" (Walton 1999a, 53). He basically uses the notion of *plausible inference* and applies it to the absence of a certain kind of evidence in given situations. For instance: "if it were raining now I would know it (by the noise); but I do not know it; therefore, it is not raining now" (Walton 1996, 1).[10] If the premises are plausible, the conclusion is plausible as well. Moreover Walton claims that some instances of the argument can be reconstructed as applications of *modus tollens* that provide plausible conclusions; but this is puzzling given that *modus tollens* provides deductive conclusions. In fact, Walton adds, it is not really *modus tollens*, but a kind of abductive argument (Walton 1999a, 57–58). He refines this idea saying that there

[7] "Every violation of any of the rules of the discussion procedure for conducting a critical discussion (by whichever party and at whatever stage in the discussion) is a fallacy" (van Eemeren and Grootendorst 2004, 175). Fallacies are "argumentative moves whose wrongness consists in the fact that they are a hindrance or impediment to the resolution of opinion on the merits" (van Eemeren 2010, 193).

[8] See van Eemeren and Grootendorst (2004, 187ff.). Cf. Walton (1999a) and van Eemeren and Grootendorst (1992, 187–194).

[9] Similar in that it is focused on the pragmatic and dialectical aspects of arguing. See e.g. Walton (1996, 1999a, b).

[10] Note that "I do not know it" is ambiguous between: (1) I have no evidence about it and (2) I have evidence it is not raining. This will be relevant for the discussion below.

is a "plausibilistic *modus tollens* form characteristic of typical *ad ignorantiam* arguments: 'if *A* then one would normally expect *B*; not *B*; therefore (plausibly) not *A*'" (Walton 1999a, 60). Some *prima facie* examples of this are the dog that did not bark, the snow without footsteps outside the house, and similar cases from which a set of plausible conclusions can be drawn.[11] So, the argument from ignorance "is a plausible inference that makes the conclusion plausible, on the assumption that the premises are plausible" (Walton 1999a, 64); and often such arguments are defeasible bases for practical deliberation (Walton 1999a, 59).

Walton also notices that the argument from ignorance is usually construed as related to non-ordinary things such as aliens and ghosts:

> it is characteristic of many of the fallacious arguments from ignorance cited in the logic textbooks that they tend to be about UFO's, the existence of God, ghosts, the paranormal, and so forth – all subjects in which there is a verifiability problem in the sense that it would be hard to know what counts exactly as evidence either for or against the claim (Walton 1999b, 369).

Besides, there are the non-fallacious uses of the argument. But Walton (1999b, 369) conceives of them as the cases where the argument is a "presumptive guide to action", which is a misleading account insofar as it misses the distinction between epistemic and practical considerations.[12] One thing is to have a set of epistemic reasons to uphold a (presumptive or plausible) belief, and quite another is to form a plan of action based on (i) that belief and (ii) a practical attitude such as a desire. The crucial aspects one must insist upon in order to redeem the argument from ignorance from easy criticism are (a) the nature of the evidence at stake and (b) the regulation of the burden of proof. As to (a), we have to distinguish the so-called negative evidence from the mere absence of it: "What is called *negative evidence* in scientific research is the kind of evidence where an outcome is tested for and does not occur".[13] As to (b), we need to observe that in a dialectical exchange "fallacious arguments from ignorance are often connected with first, a reversal of burden of proof, and second, a difficulty in fulfilling that burden, once it has been reversed, especially in cases where genuine evidence is difficult to find" (Walton 1999b, 375–376). (More on both points below).

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[11] Wreen (1996, 354–356) argues that using *modus tollens* here counts as reconstructing deductively a genuine inductive argument, something he criticizes as artificial and based upon highly disputable premises. In fact, Walton (1999a, 60) qualifies that *modus tollens* as "plausibilistic", and Walton (2006, 323) qualifies it as "presumptive".

[12] At most, I would say that practical interests influence epistemic justification. See Stanley (2005) and Tuzet (2008). That idea was already in Carnap (1936, 426): "Suppose a sentence S is given, some test-observations for it have been made, and S is confirmed by them in a certain degree. Then it is a matter of practical decision whether we will consider that degree as high enough for our acceptance of S, or as low enough for our rejection of S, or as intermediate between these so that we neither accept nor reject S until further evidence will be available."

[13] Walton (1999b, 372). Note that this is evidence of absence, not absence of evidence; the absence of evidence would be the absence of testing, which is different from a testing with a negative outcome.

In later works Walton has stressed, on the one hand, the importance of that dialectical dimension to assess what he now calls "lack of knowledge inferences"[14] and, on the other hand, the importance of the epistemic distinction between negative evidence and absence of evidence. Let me focus on the latter point for the moment. If a search is scrupulous and nothing sought for is found, it is plausible to infer that what was sought for is not there. The inference is not a deductive one and the argument is not fallacious if we admit of inductive or abductive standards. "The argument from ignorance can become weak or erroneous where it is taken as a stronger form of argument than the evidence warrants" (Walton 2008, 58).

Revisiting our introductory example, with respect to (A), if the background knowledge suggests that silicone implants are safe and the relevant information is that several tests have been made and they don't prove that such breast implants are unsafe, then by an inductive or abductive standard we can infer that silicone breast implants are safe. If, on the contrary, with respect to (B), the background knowledge suggests that silicone implants are unsafe and the relevant information is that several tests have been made and they don't prove that such breast implants are safe, then by an inductive or abductive standard we can infer that silicone breast implants are unsafe. But these are not arguments from ignorance proper: they are arguments from negative evidence.

Walton et al. (2008, 327) provide this *modus tollens* scheme of the argument:

Major Premise: If *A* were true, then *A* would be known to be true.
Minor Premise: It is not the case that *A* is known to be true.
Conclusion: Therefore, *A* is not true.

The question is in the way we read the major premise.[15] How should we construe that conditional? Does it say that if *A* were true, then *in principle A* would be known to be true after a complete investigation about it? Or that if *A* were true, then *here and now A* would be known to be true as far as we are concerned? Of course the first reading is stronger and is the one that seems to be correct. But that reading transforms the argument into a sort of metaphysical claim, like Peirce's definition of reality as that which would be known at the ideal limit of inquiry.[16] Moreover, it transforms it into an argument from negative evidence; for it (counterfactually) states that a complete investigation was carried out and *A* was not found to be true. In fact, actual uses of the argument from ignorance are in line with the weaker reading. But then the argument is deductively fallacious, for here and now we have no deductive guarantee to know what is the case and what is not.

[14] "Arguments from ignorance presuppose a dialogue that is usually of the information-seeking or inquiry type, in which data are being collected in a knowledge base. How strong the argument is depends on how much data have been collected at the given point in the dialogue where the argument was put forward" (Walton 2006, 323). Cf. Walton (2008, 59) and Walton et al. (2008, 98–100).

[15] On this see also Wreen (1996, 356–358).

[16] Cf. Misak (2004, 5–8) and, for a somewhat different reading, De Waal (2001, 41, 48).

3.3 Absence of Evidence Is Not Evidence of Absence

Logically speaking, the absence of evidence that *p* is not evidence that not-*p*, nor is the absence of evidence that not-*p* evidence that *p*.[17] To put it more simply using the lawyer's saying, "Absence of evidence is not evidence of absence". Is this true? Perhaps it is true in general but not in particular. Or perhaps we have to make some conceptual refinements.

Let me start from a non-legal example (and indeed one of the standard and uninteresting examples that Walton criticizes). We lack evidence of the existence of aliens. What are we entitled to infer from that absence? That aliens do not exist? That they exist? Neither, from a deductive point of view. The absence of evidence about them does not imply anything about their existence. Indeed ignorance is a good ground for suspending judgment, not for taking a side (Robinson 1971, 102). Even Donald Rumsfeld would agree. Once he famously claimed that there are "unknown unknowns" beside the "known unknowns", which meant, in the context of his remark (less silly than it seemed), that the absence of evidence of weapons of mass destruction in Iraq was not evidence of their absence.[18] In logical terms, as we said, that we have no evidence that *p* doesn't mean that we have evidence that not-*p*.

But suppose we get some extraordinarily powerful instruments of observation that make us able to look into every corner of the universe: if we don't find anything about aliens, would it be reasonable to remain agnostic about them? The conclusion that they do not exist would have a much stronger inductive or abductive support than the conclusion that they do. The same holds, *mutatis mutandis*, on weapons of mass destruction. However you could object that in drawing those inferences we would take the absence of evidence as evidence of absence, and that would be incorrect from both an argumentative and a conceptual point of view. Would that be an appropriate objection?

A *thorough, scrupulous and possibly complete search* is the key element here: "lack of confirmation after a hypothesis has been given a fair chance is equivalent to disconfirming it" (Wreen 1989, 310). Note that it is not necessary to use aliens or terrible weapons to build up examples. Imagine that someone asks me to check if Robert is in the room: now I enter the room, look for Robert everywhere (behind the door, under the bed, inside the wardrobe, etc.), but don't find him. Could I say that I have enough evidence that he's not there? Should I rather say that I have no evidence that he's there? This seems to be a typical case of negative evidence, not of mere absence of it. I have a significant amount of negative evidence that he's not in

[17] See e.g. Taruffo (1992, 124ff., 222ff.); Laudan (2006, 93); Haack (2011, 7). In a seminar at Bocconi in March 2013, Hendrik Kaptein pointed out that there is a link between arguments from ignorance and *a contrario* arguments; I cannot elaborate on the point here.

[18] See Stephens (2011, 56–57). Cf. Haack (2011, 1) and Sahlane (2012, 472–473).

the room. A different issue[19] would be to know whether he is in the *next* room; well, in that situation I wouldn't know, for I would have no evidence about it.

That testing procedure is carried out informally in ordinary life and is carefully structured in scientific research and evidentiary legal settings. In these contexts we structure sensible experiments and try to conduct them properly in order to test the hypotheses at stake.

Scientists and lawyers agree that on certain conditions, determined by the characters of the search and of the argumentative exchange, failure to produce evidence is evidence itself. "Our failure to find evidence where we expect to find it or the failure of persons to produce things or provide testimony can in many cases be regarded as a form of evidence" (Anderson et al. 2005, 75). This is related to what we will discuss below under the heading of "negative inferences" triggered by evidentiary "gaps". But missing evidence is different from negative evidence, as the good old saying has it. One thing is the failure to produce evidence where we expect to find it, and the absence of any evidence at all is quite another.

So, what is important here is not only the theory of argumentation you subscribe to, but also the criteria (or standards) of adequacy of search. Once you admit a non-deductive account of argumentative correctness, it seems reasonable to postpone the assessment of an argument from ignorance once the discursive context, the relevant information and the background knowledge have been considered.

Larry Laudan (2006, 93) has said that "failure to prove *X* is never a proof of not-*X*". This is in tune with the idea that absence of evidence is not evidence of absence. But the application of the old saying to the cases in which an experiment doesn't deliver the expected outcome is not persuasive. If we run an experiment expecting to prove *X* and the experiment fails, we have something more than the mere absence of evidence (*a fortiori* if the experiment is crucial for the testing of a hypothesis). Similarly, if we make a thorough, scrupulous and complete search and don't find what we search for, we have something more than the mere absence of evidence. Perhaps the "never" in Laudan's statement is too strong. Or, better, the critical point is the meaning of "proof", which is a success-word and is usually related to a deductive standard. Given such refinements, we could say that, on the one hand, "failure to prove *X* is *never a proof* of not-*X*" and that, on the other, "failure to prove *X* is *often evidence* of not-*X*".[20]

David Kaye has made the point in the context of a discussion about evidence and probability (which is not relevant to the present purpose).[21] He says that gaps in the evidence generate "negative inferences". When we expect to find certain items of

[19] From a pragmatic point of view, one thing is the question ("Is Robert in the room?"), and another is the claim ("Robert is in the room"). When the claim is made, in certain contexts at least there is a presumption of knowledge on the person who makes it. When this is the case, the maxim that is followed is something of this sort: Trust the person and the claim unless there is some reason to have doubts about them.

[20] But one has also to distinguish "failure" as providing no evidence and "failure" as providing negative evidence.

[21] Kaye (1986). On that topic and the absence of evidence cf. Stephens (2011).

evidence, and don't find them, it is natural to draw a "negative inference" about the claim in question. Analogously, when we expect someone to provide us with certain items of evidence, and they do not do so, we generate a "negative inference" about the claim they make. Therefore, gaps in a litigant's evidence make the party's story less believable.

> Any good trial lawyer knows that the jury will expect to hear certain items of evidence in certain cases, and that it may regard the failure to produce such evidence with devastating skepticism (Kaye 1986, 663).

This happens both in civil and criminal cases. Let us consider the example Kaye gives of a gap in civil matters:

> Consider a paternity case in which the plaintiff concedes that two men could have been the father. Suppose the plaintiff compels the defendant to submit to immunogenetic testing, and inexplicably ignores the other man. Even if the genetic tests implicate the defendant, the plaintiff's story is weaker than it would be if both men had been tested and the nonaccused man excluded as a potential father (Kaye 1986, 664).

As a criminal example, consider the case of the defendant who claims to have an alibi and then fails to produce some testimony in this respect. Or the case of the prosecutor who does not produce a crucial testimony.[22]

The same point has been made by Richard Posner discussing the evidentiary virtues of the adversary system and the issue of "evidentiary *lacunae*" (Kaye's gaps):

> The adversarial system […] facilitates the drawing of reliable inferences from evidentiary *lacunae*. If one party ought to be able to obtain favorable evidence to itself at low cost, then its failure to present such evidence allows the trier of fact to infer that the party is concealing unfavorable evidence and should therefore lose (Posner 1999, 1493).[23]

This kind of examples help us rebut a possible claim generated by the consideration of negative evidence. The claim would be quite radical conceptually speaking and would consist in rejecting the idea of absence of evidence altogether. The argument would consist in claiming that absence of evidence, correctly understood, is always evidence of something else: lack of evidence of footsteps is evidence that there are no footsteps; absence of dog-barking evidence is evidence that the dog did not bark; absence of testimony that p is evidence that it is false that p; etc. That would be too radical, however. We should not overlook the difference between (*1*) knowing there are no footsteps in the snow, and (*2*) knowing nothing about it, i.e. not knowing whether there are footsteps in the snow or not. Plausibly, cases of type (*2*) are less frequent in legal reasoning and argumentation. Cases are normally of

[22] Of course the case of the prosecutor and that of the defendant are different from the point of view of the burden of proof. More on this below.

[23] This has interesting consequences for the discussion on probabilities and Bayes' theorem applied to legal fact-finding, as far as the critics claim "that Bayes' theorem does not recognize that the weight and *completeness* of the evidence bearing on a hypothesis, and not just the odds that we might give on its correctness if we are betting folk, are important to people's judgments. In fact, weak evidence and *missing* evidence do affect the odds that a person would be willing to give that some hypothesis was correct" (Posner 1999, 1514; my italics).

type (*1*). One of the reasons of this is that legal proceedings do not even start if evidence is completely absent. In any event, more frequent than knowing-nothing cases are gappy-evidence cases, as Kaye's example suggests, or cases with evidentiary *lacunae*, as Posner puts it.

From a logical point of view the same distinction can be drawn in terms of *internal* and *external negation*.[24] External negation corresponds, in this context, to the absence of evidence. Namely, the absence of evidentiary elements. Internal negation corresponds to negative evidence (or, if you prefer, evidence of absence). Namely, evidence of a proposition with a negative content. The dog that did not bark, the window that was not broken, the ground without tracks, the snow without footsteps, my finding that Robert is not in the room, etc. are cases of the latter. They are cases in which there is evidence of a negative propositional content.

Absent and negative evidence risk to be confused. As in the following example:

> The government discovered a substantial marijuana field on Robert Fuesting's property and charged him with possession of marijuana with intent to distribute. At trial, Fuesting attempted to introduce testimony by his banker and attorney that his bank accounts and tax returns showed no large amounts of money. Fuesting argued that, if his finances *had shown* these kinds of transactions, the government would have introduced them to buttress its drug-dealing allegations. The absence of such transactions, Fuesting argued, was equally relevant to suggest that he was *not* engaged in drug dealing.[25]

The judge excluded the evidence, finding that there were too many conceivable (and plausible) explanations for the absence of large funds. But note, apart from the merits, the double aspect of the defendant's argumentation: he claims there is significant absence of evidence in the government's argument (no evidence of his transactions), and he offers evidence of absence (evidence of no transactions of that sort).

So it is true that evidence of absence is not absence of evidence, and some of the cases that are presented as typical instances of absent evidence are actually cases of negative evidence. Beside these, there are the true evidentiary *lacunae* or evidentiary gaps, as genuine cases of absence of evidence. And these are the cases in which ignorance is at stake as a premise for an inference.[26]

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[24] Internal and external negation can be also used to give an account of the *a contrario* argument. See Canale and Tuzet (2008).

[25] Merritt and Simmons (2012, 64). The case is *U.S. v. Fuesting*, 845 F.2d 664 (7th Cir. 1988). See also Lyon and Koehler (1996, 70ff.) on the lack of physical signs in child sexual abuse cases: attorneys sometimes try to persuade judges to admit testimony about the lack of evidence of *X* on grounds that if *X* were present the judge would admit it for the opposing side; some judges are persuaded by this reasoning, but it is, in general, fallacious; Lyon and Koehler claim that there are special cases in which presence and absence are equally probative (but generally, they are not). Note, however, that a testimony about the lack of signs is *negative evidence*.

[26] Raymundo Gama has pointed out to me that Rescher (2006, 2–3) distinguishes *arguing from ignorance* from *arguing in ignorance*, where the former takes ignorance as a "ground or premise" of the argument itself and the latter is the situation in which we try to build up the best argument we can notwithstanding our ignorance. I am not sure, however, that they do not collapse into one another.

With all this mind, we can actually try to distinguish four versions of the argument from ignorance:

1. strong affirmative (SA): given the absence of evidence against *p,* it is true that *p*;
2. weak affirmative (WA): given the absence of evidence against *p*, it is plausibly true that *p*;
3. strong negative (SN): given the absence of evidence for *p*, it is false that *p*;
4. weak negative (WN): given the absence of evidence for *p*, it is plausibly false that *p*.

Note that (WN) is the use of the argument in which absence of evidence *is* evidence of absence. And observe that the weak versions are in tune with a non-deductive conception of inference and argumentation, while the strong remain fallacious even for inductive and abductive standards.[27] But in a legal perspective the trouble is different. It is not hard to see that *both the affirmative versions of the argument are more worrisome* than the negative from the viewpoint of the due process of law. Consider that the former, namely (SA) and (WA), infer the truth of a claim from the absence of evidence against it, while the latter, namely (SN) and (WN), infer the falsity of a claim from the absence of evidence in favor of it. Now take the claim to be a criminal charge. In a witch-hunt scenario, if you have to disprove a charge made against you and you don't provide evidence against it, you will be convicted. Without the presumption of innocence and without the burden of proof on the prosecution, the affirmative versions of the argument would mean that every person charged with an offence would be convicted unless they were able to present evidence in their favor (with the possible difference that the plausible conclusions of the weak affirmative version may not satisfy the criminal standard of proof). There would be a presumption of guilt indeed. Which means that the argument from ignorance is a worrisome inference, to say the least, in criminal proceedings, but is not necessarily so in civil proceedings, as I will show below with the *McDonnell Douglas* example.

3.4 Absence of Evidence, Burdens of Proof and Presumptions

In this last part of the paper I say something more on the way arguments from ignorance connect with legal burdens of proof and presumptions. The outcome will be that arguments from ignorance determine, on the absence of evidence, normative conclusions where a normative presumption is in play.

Is the absence of evidence as relevant for the defendant as the presence of evidence is for the plaintiff? Is the absence of evidence as relevant for the accused as the presence of evidence is for the prosecutor?

[27] In other words, the strong display the fallacy of "making an absolute of the failure of the defense" (van Eemeren and Grootendorst 1992, 187–191).

Obviously things change according to the burdens of proof. But the issue of legal burdens is quite complex and here cannot be dealt with in detail.[28] Just to nod at it, note that the burden of *persuasion* is different from the burden of *production*, in that the latter consists in the burden of producing enough evidence so that an issue is raised and must be addressed, while the former consists in the burden of proving a claim to some standard of proof. "For the burden of persuasion, there are decision rules that the jury must apply in evaluating the evidence. […] For the burden of production, the judge applies rules to determine whether a party has produced enough evidence to avoid an adverse judgment" (Allen et al. 2011, 718). And, more importantly here, note that burdens are connected with *presumptions*.[29]

Consider as a significant example the complex intertwining of burden of production, presumption of discrimination and missing evidence in the cases that fall under the *McDonnell Douglas* rule, as presented by Posner (1999, 1503–1504). That rule is mainly applied in employment discrimination cases and it permits the plaintiff, say in cases of racial discrimination in hiring, to establish his *prima facie* case with the only evidence that he were qualified for the job but was passed over in favor of someone of another race.[30] This involves a presumption of discrimination on the basis of a burden of production that is not hard to satisfy. Satisfying this burden of production creates a presumption of discrimination, says Posner, meaning that if the defendant puts in no evidence, the plaintiff is entitled to summary judgment.

> The probability that he lost the job opportunity *because* he was discriminated against might seem not to be very high if the only evidence is as described. But this disregards the evidentiary significance of *missing evidence* [my italics]. If the defendant, who after all made the decision to give the job to someone other than the plaintiff, maintains complete silence about the reason for his action, an inference of discrimination arises. If the reason was otherwise, he should have been able without great difficulty to produce some evidence of that (Posner 1999, 1503–1504).

The presumption shifts the burden of persuasion onto the defendant and if he puts in no evidence he loses. In other words this is an absence of evidence case, in that the failure of the defendant to produce some evidence against the claim of the plaintiff determines a conclusion that is favorable to the plaintiff, given that his claim is supported by a presumption of discrimination triggered by the satisfaction of his burden of production. Posner remarks *inter alia* that the rule has an economic rationale in that, if the defendant's decision was not discriminating, he should have been able to produce some evidence of that without great difficulty, that is, at a low cost. If Posner is right, we could rephrase the point saying that the economic ratio-

[28] See e.g. Allen et al. (2011, 718ff.) and Prakken and Sartor (2006). Of course the burden of proof is relevant for argumentation theory too. For instance, van Eemeren (2010, 213) says that the burden of proof is a "procedural concept" required "for dialectical reasons", and van Eemeren and Grootendorst (1992, 123) observe that the argument from ignorance is related to the fallacy of *shifting the burden of proof*. Cf. van Eemeren et al. (2002, 113–116).

[29] Consider also some conceptual questions I must leave aside here: Is there a conceptual dependence relation between burdens and presumptions? Or, are they different sides of the same coin? In the first case, are burdens dependent on presumptions or vice versa?

[30] For a similar rule in Italian law see Taruffo (1992, 481).

nale of the rule rests on an epistemic one, given that the best knowledge of what happened in the hiring decision is on the defendant himself. But things are different in the criminal domain, of course, where the presumption of innocence is in favor of the defendant.

Now some authors say that the presumption of innocence is a justified argument from ignorance: from the absence of evidence of guilt, innocence is inferred.[31] Unfortunately this is a simplistic reading of the presumption. The presumption of innocence is not really an argument from ignorance in the epistemic sense of it. Rather, it is a practical decision upon legal grounds.

> It is a decision to treat the accused henceforth as innocent, rather than an intellectual conclusion that he is innocent. The court does not in fact always conclude that the prisoner is innocent when it declares him not guilty. It concludes rather that he is henceforth to be treated as innocent (Robinson 1971, 106).

This is not surprising if we understand presumptions as inferential and argumentative devices that help us in the process of decision-making. This is in particular the view of Edna Ullmann-Margalit (1983, 155), who takes presumptions to be assumptions for practical deliberation: "they function as a method of extrication, one among several, from unresolved deliberation processes. What they do is supply a procedure for decision by default." Others, who claim that genuine presumptions are beliefs,[32] consider the presumption of innocence as a "rule of inference" or a "methodological principle" applicable in the courtroom.

> Strictly speaking, the presumption of innocence isn't a presumption at all. Presumptions are basically beliefs. The presumption of innocence, on the other hand, is a rule, or […] a methodological principle, applicable only in the courtroom (Wreen 2003, 374).

This makes it different from an *ad ignorantiam* argument, for the presumption of innocence is rather "on a par with a rule of a game" (Wreen 2003, 375). Therefore, both for the view of presumptions as practical assumptions and for the view of the presumption of innocence as a legal rule of inference, the argument from ignorance is not in this context an epistemic inference purported to draw a conclusion on what is the case: it is instead a practical argument; it is decision-oriented; and it applies a presumptive rule articulated to some burden of proof. The presumption of innocence does not rest on the belief that criminal defendants are usually innocent; in fact "legal innocence" is distinct from "innocence simpliciter", as Wreen (2003, 367) puts it, or, as Laudan (2006, 12) puts it, "probatory innocence" is distinct from "material innocence". In brief the conclusion of this argument from ignorance is *normative*, not epistemic. Because of this, two additional uses of the argument from ignorance must be distinguished:

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[31] See e.g. Walton et al. (2008, 98). For a more refined view of the presumption, cf. Wreen (1996, 351–353) and Wreen (2003).

[32] This would need a refinement, however. Presumptive beliefs are different from other probabilistic beliefs or degrees of belief in that the former are generated by some prior generalizations or default criteria. See e.g. Lyon and Koehler (1996, 55–57) on the jurors' (false) presumption that a lack of physical signs conclusively disproves child abuse.

5. normative affirmative (NA): given the absence of evidence against p, p should be treated as true;
6. normative negative (NN): given the absence of evidence for p, p should be treated as false.[33]

It is easy to see that (NA) is correct when there is a presumption of guilt or some presumption in favor of the plaintiff. Whereas (NN) is correct when there is a presumption of innocence or some civil presumption in favor of the defendant.

To conclude on this point. If in legal argumentation presumptions are rules of inference from some sort of ignorance, they trigger normative conclusions from premises that are in part prescriptive (being made of such rules on burdens and presumptions) and in part descriptive (being made of the statements about a party's failure to satisfy a burden). If the defendant, in our example, does not provide any evidence of the non-discriminatory reasons of his hiring decision, the claim of the plaintiff should be treated as true and a decision should be made in his favor. Then a principled justification of such arguments from ignorance rests on the justification of those burdens and presumptions. And even if epistemic reasons may play a role in it (as in the *McDonnell Douglas* rule),[34] the justification of those burdens and presumptions is essentially practical; for it has to do with the functioning of legal proceedings and, most of all, with the fundamental values protected by the law (individual liberty for the presumption of innocence).

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References

Allen, R.J., et al. 2011. *Evidence. Text, problems, and cases*, 5th ed. New York: Wolters Kluwer.
Anderson, T., D. Schum, and W. Twining. 2005. *Analysis of evidence*, 2nd ed. Cambridge: Cambridge University Press.
Canale, D., and G. Tuzet. 2008. On the contrary: Inferential analysis and ontological assumptions of the *a contrario* argument. *Informal Logic* 28: 31–43.
Carnap, R. 1936. Testability and meaning. *Philosophy of Science* 3: 419–471.
De Waal, C. 2001. *On Peirce*. Belmont: Wadsworth-Thomson Learning.
Flach, P.A., and A.C. Kakas (eds.). 2000. *Abduction and induction. Essays on their relation and integration*. Dordrecht: Kluwer Academic Publishers.
Grice, P. 1989. *Studies in the way of words*. Cambridge/London: Harvard University Press.
Haack, S. 2011. *Epistemology: Who needs it?* Typescript.
Hamblin, C.L. 1970. *Fallacies*. London: Methuen.
Kaye, D.H. 1986. Do we need a calculus of weight to understand proof beyond a reasonable doubt? *Boston University Law Review* 66: 657–672.

[33] Things are complicated, however, by the fact that normative considerations (on belief justification in particular) are also in play in epistemic contexts.

[34] Cf. Ullmann-Margalit (1983, 157ff.) on the justification of particular presumptions.

Laudan, L. 2006. *Truth, error, and criminal law*. Cambridge: Cambridge University Press.
Lyon, T.D., and J.J. Koehler. 1996. The relevance ratio: Evaluating the probative value of expert testimony in child sexual abuse cases. *Cornell Law Review* 82: 43–78.
Merritt, D.J., and R. Simmons. 2012. *Learning evidence. From the Federal rules to the courtroom*, 2nd ed. St. Paul: West.
Misak, C. 2004. Charles Sanders Peirce (1839–1914). In *The Cambridge companion to Peirce*, ed. C. Misak, 1–26. Cambridge: Cambridge University Press.
Posner, R. 1999. An economic approach to the law of evidence. *Stanford Law Review* 51: 1477–1546.
Prakken, H., and G. Sartor. 2006. Presumptions and burdens of proof. In *Proceedings of the 19th annual conference on legal knowledge and information systems (Jurix)*, ed. T. Van Engers, 21–30. Amsterdam: Ios Press.
Rescher, N. 2006. *Presumption and the practices of tentative cognition*. Cambridge: Cambridge University Press.
Robinson, R. 1971. Arguing from ignorance. *The Philosophical Quarterly* 21: 97–108.
Sahlane, A. 2012. Argumentation and fallacy in the justification of the 2003 war on Iraq. *Argumentation* 26: 459–488.
Stanley, J. 2005. *Knowledge and practical interests*. Oxford: Clarendon.
Stephens, C. 2011. A Bayesian approach to absent evidence reasoning. *Informal Logic* 31: 56–65.
Taruffo, M. 1992. *La prova dei fatti giuridici*. Milan: Giuffrè.
Tuzet, G. 2008. La justification pragmatique des croyances. *Revue Philosophique* 133: 465–476.
Ullmann-Margalit, E. 1983. On presumption. *The Journal of Philosophy* 80: 143–163.
van Eemeren, F.H. 2010. *Strategic maneuvering in argumentative discourse*. Amsterdam: John Benjamins.
van Eemeren, F.H., and R. Grootendorst. 1992. *Argumentation, communication, and fallacies. A pragma-dialectical perspective*. Hillsdale: Lawrence Erlbaum Associates.
van Eemeren, F.H., and R. Grootendorst. 2004. *A systematic theory of argumentation. The pragma-dialectical approach*. Cambridge: Cambridge University Press.
van Eemeren, F.H., R. Grootendorst, and F. Snoeck Henkemans. 2002. *Argumentation. Analysis, evaluation, presentation*. Mahwah: Lawrence Erlbaum Associates.
Walton, D. 1996. *Arguments from ignorance*. University Park: The Pennsylvania State University Press.
Walton, D. 1999a. Profiles of dialogue for evaluating arguments from ignorance. *Argumentation* 13: 53–71.
Walton, D. 1999b. The appeal to ignorance, or *argumentum ad ignorantiam. Argumentation* 13: 367–377.
Walton, D. 2006. *Fundamentals of critical argumentation*. Cambridge: Cambridge University Press.
Walton, D. 2008. *Informal logic. A pragmatic approach*, 2nd ed. Cambridge: Cambridge University Press.
Walton, D., C. Reed, and F. Macagno. 2008. *Argumentation schemes*. Cambridge: Cambridge University Press.
Wreen, M. 1989. Light from darkness, from ignorance knowledge. *Dialectica* 43: 299–314.
Wreen, M. 1996. Most assur'd of what he is most ignorant. *Erkenntnis* 44: 341–368.
Wreen, M. 2003. Arguments from ignorance and the presumption of innocence. *Logique et Analyse* 183–184: 365–382.