The Argumentation Scheme from Vicarious Liability*

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Abstract. In this paper, we propose the formalisation of a new argumentation scheme for the domain of legal argumentation, which we call Argument from Vicarious Liability. This scheme is particularly frequent in the domain of Tort Law and describe the concept of Respondeat Superior, according to which the liability of a wrongdoing can be connected to the agent who is hierarchically above the wrongdoer. While pointing out the need to deepen the study of liability in argumentation schemes and legal argumentation, this work is also proposing the first argumentation scheme which is explicitly related to liability and, indirectly, to causality, showing its connection with pre-existing argumentation schemes.

Keywords: Argumentation Schemes · Liability · Legal Knowledge Representation.

1 Introduction

In recent years, an increasing interest has been dedicated to argumentation schemes, a theoretical construct which is employed in structured argumentation, i.e. the branch of argumentation which considers arguments not as atomic structures (like for abstract argumentation), but as having an internal structure. This internal structure usually depends on which kind of model of argument is employed, for example the Toulmin's model of argument (composed of claim, ground, warrant, backing, qualifier, rebuttal) [11] or the Walton's model (composed of a set of premises and a conclusion [15]). Many works on Argumentation and Artificial Intelligence (AI) have focused on the Walton's model, showing its usefulness in the field of AI, especially with regard to the use of argumentation schemes [8][2][4][5]. Argumentation schemes can be described as stereotypical inferential patterns of reasoning [9], represented in natural language and showing some sort of inferential steps which people commonly employ in communication, particularly when arguing. A famous example of argumentation scheme which is stereotypically employed by people in everyday argumentation is the so-called argument from negative consequences (Table 1).

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	If A is brought about, bad consequences will plausibly occur
Conclusion	Therefore, A should not be brought about.

Table 1. Structure of the argument from negative consequences, which is composed of one single premise and a conclusion.

This scheme is a very common stereotypical inferential pattern, which one can easily find in everyday conversations. Broadly, these stereotypical schemes are useful to analyze and evaluate arguments in a wide range of fields, including philosophy, law, and AI. They can be seen as argumentative templates [6], which can then be instantiated in more specific ways, depending both on how natural language is used by the arguers, and on the context. In general, these schemes provide a way to identify and analyze the structure of an argument and to determine whether it is a strong or weak argument, also with the use of the so called critical questions, which can be thought as "stress tests" for the hold of the argument's structure.

While a compendium of some of the most frequent argumentation schemes has been proposed by Walton in his famous works [15], a recent work proposed a similar effort in the field of legal argumentation, therefore focusing on legal argumentation schemes [14]. The motivation behind our work is to contribute to this area of research focusing on some aspects which we consider worth deepening. In particular, we noticed that little account has been given to the role of liability in legal argumentation schemes, including the interplay between causal responsibility and legal responsibility.

In this work, we will show an example of legal argumentation scheme where legal responsibility (i.e., liability) is at stake, namely the argument from vicarious liability. As we will see, this scheme also offers a starting point for another research direction, showing the need to find argumentation schemes based on legal and causal responsibility.

In [14], we can find argument schemes which are specific of the legal statutory interpretation, for example the argument from precedent, or the argument from the application of a rule. We argue that the direction undertook by this compendium of legal argumentation schemes could be further enriched by adding an account of how causality and liability are instantiated in legal schemes. In fact, although causal responsibilities and legal responsibilities are very much important in legal reasoning (which can be channeled by the concepts of causality and liability), it seems that little account has been given to these two crucial aspects, apart from very few works (e.g., [1]). Therefore, we believe that we need to give some account of legal argumentation schemes from causality and legal argumentation schemes from liability, which we believe is currently missing. To stimulate these research directions and to show that some important argumentation schemes could fall under these two umbrellas, we describe and formalise a quite important argumentation scheme which directly take into account liability (and, indirectly, also causality). On the one side, our aim is to stimulate further research in this direction of searching for legal argumentation schemes

from causality and from liability (we will target the second ones). On the other side, we want to point out that this direction is not linear and the well-known difference (and overlapping) between liability and causality, deserves to have an account in legal argumentation (and in the formalisation of legal argumentation schemes). In this work, we start investigating this direction by offering a first case study which explicitly focuses on a legal argumentation scheme from liability (while also taking into account elements of causality). More specifically, we will refer to the idea of vicarious liability, which is often used by judges to support (or attack) argumentative standpoints in legal reasoning. To show the importance of this scheme, we will refers to two famous judgements where it was employed: Mohamud v WM Morrison Supermarkets plc [2016] UKSC 11, 2 March 2016] and Cox v Ministry of Justice [2016] UKSC 10, 2 March 2016. We will thus provide a formalisation of the scheme, including critical questions, showing how judges employed this scheme.

While describing the argument from vicarious liability, we will also suggest potential argumentative and ontological connections between our proposed scheme and existing Waltonian schemes. This is important because we believe that more account should been given to how the original Waltonian compendium and the *legal compendium* in [14] are ontologically related. This means showing, for example, how legal schemes are related to non-legal ones, or how legal schemes establish supporting/attacking relations with the original Waltonian schemes (we will briefly explore this second option).

Furthermore, it is worth mentioning that our scheme from vicarious liability is a perfect example to show that the relation between causality and liability deserves more attention from the argumentative point of view. In this regard, while showing that causal responsibility and legal responsibility does not necessarily coincide, we would also like to suggest that there might be complex (but stereotypical and thus frequent) interactions between these two spheres, which might have corresponding argumentation schemes.

To the best of our knowledge, this is the first work which deals with a specific case of legal argumentation scheme from liability, and we hope that further research can go towards this direction, shedding more light on how the interplay between liability and causality is instantiated in legal argumentation. In Section 2, we introduce the idea of vicarious liability, briefly describing its meaning and doctrine. In Section 3, we will formalize the argumentation scheme from vicarious liability before introducing two famous cases in the two sections after. In this section, we will also show the relationship with other schemes and give a brief account of how causality and liability interact in the case of vicarious liability. In Section 4, we will describe the case *Mohamud v WM Morrisons Supermarkets*. In Section 5, we will describe the case *Cox v Ministry of Justice*. In Section 6, we will discuss some aspects of the proposed scheme, while Section 7 will conclude.

2 Vicarious Liability

The Vicarious Liability is a well-known kind of liability in legal theory. This kind of liability is related to the doctrine of *Respondeat superior* (from Latin: "let the master answer"), according to which a party is responsible for acts performed by other agents. For example, in some circumstances, an employer can be liable for the actions of employees, if these actions are performed in the course of the employment. This kind of rule is sometimes referred to as "master-servant rule" and exists in both civil law and common law juridical systems.

Vicarious Liability, in a broader sense, is a form of strict and secondary liability. Strict liability arises when a person is considered legally responsible for the consequences of an activity even in absence of fault or criminal intent. Secondary liability arises when a party materially facilitates, induces, or contribute to directly infringing acts carried out by other parties. In other words, strict and secondary liabilities produces legal responsibility also in absence of a direct causal connection between the wrongdoing and the person who is target of the liability. In the more specific case of vicarious liability, the liability is channeled from the wrongdoer to the liable person because of the kind of relationship that exist between the wrongdoer and the liable person (e.g., an employer-employee relationship), as well as because of the context in which the wrongdoing took place (i.e., the wrongdoing must have been done in the course of such kind of relationship).

More precisely, the doctrine of vicarious liability provides that an employer can be held liable for civil wrongdoings committed by his employees if a connection between the employer and the primary wrongdoer (i.e., the connection, or relationship, between the employer and the employee) exists and the connection between the employment and the wrongdoing is sufficiently close to make it fair to hold the employer liable for the wrongdoer's actions (i.e., if the wrongdoing is sufficiently considered as something occurred in the context of the abovementioned relationship). In other words, establishing a vicarious liability is a two-stage test. The first limb of the test is establishing the existence of the relationship between the wrongdoer and the vicariously liable person. The second limb of the test is establishing whether the wrongdoing occurred in the context of such relationship. This two-stage test comes from the famous case of Lister v Helsey Hall [2001] UKHL 22 and has since been used in a wide range of legal decisions.

Clearly, this two-stage test is in itself open to legal interpretation since it inevitably comes down to a value judgement based on the particular contextual circumstances in any given case. This is where legal reasoning and legal argumentation enter the scene. In this regard, on the one side, some cases have focused more on establishing the first limb of the test, i.e., the assessment of the kind of relationship, like the case $Cox\ v\ Ministry\ of\ Justice$. On the other side, some cases have focused more on establishing the second limb of the test (sometimes referred to as "close connection" or "sufficient connection" test), like the case $Mohamud\ v\ WM\ Morrison\ Supermarkets\ plc$. Before analysing these

two famous cases, we will propose, in the next section, a model for the argument from vicarious liability.

3 Argumentation Scheme from Vicarious Liability

This scheme is quite frequent in tort law and is based on the above-mentioned idea of vicarious liability, according to which a the legal responsibility (i.e., the liability) of a wrongdoing is channeled from the wrongdoer (who has the direct or causal responsibility of the wrongdoing) to a second agent who has a relevant hierarchical relationship with the wrongdoer (e.g., a relationship employer-employee). As mentioned before, the assessment of vicarious liability in tort law has been traditionally assessed through a simple test consisting of two questions: (1) is there a relevant relationship between the wrongdoer and the third party (e.g., an employment relationship)? (2) is the connection between such relationship and the wrongdoing sufficiently close?

From an argumentative point of view, one can interpret this questions as the critical questions that judges must verify to assess a potential vicarious liability. In fact, to understand better, we can switch to an argumentative perspective by saying that the aim of the two-stage test is to assess the hold of the argument according to which it is the case that the doctrine of vicarious liability is applicable. Even though switching to this argumentative perspective makes it easier to see the critical questions behind the two-stage test, we still do not have a formal structure for the scheme from vicarious liability to which these critical questions are referred. In other words, what is the argument that this two-stage test tries to stress-test? First of all, an argument from vicarious liability must consider that a wrongdoer is responsible for a wrongdoing (first premise). Secondly, one need to consider not just the wrongdoer, but a second person who has a specific (i.e., relevant) relationship with the wrongdoer (second premise). Furthermore, the wrongdoing must be located in the context of such relationship (third premise). Finally, the conclusion must be that the second person is vicariously liable for the wrongdoing. Hence, we propose to design the argumentation scheme from vicarious liability as follows:

- (P1) Agent A is causally responsible for wrongdoing W through Action D [Causal Responsibility Premise]
- (P2) Agent L has a relevant vicarious relationship R with Agent A [Vicarious Relationship Premise]
- (P3) Action D occurred in the scope of relationship R [Vicarious Wrongdoing Premise]
- (C) Therefore, Agent L is vicariously responsible for wrongdoing W [Conclusion]
- (CQ1) Is it really the case that there is a relevant relationship between Agent A and L? [Vicarious Relationship Critical Question]
- (CQ2) Is the connection between relationship R and wrongdoing W sufficiently close? [Sufficient Connection Critical Question]

(CQ3) Is Agent A causally responsible for wrongdoing W? [Causal Responsibility Critical Question]

As can be seen above, the critical questions reflect the two-stage test, while adding a further critical question to stress test the very first premise. In fact, other studies have shown that each premise can be attacked on the bases of the content it provides, and premises generally provide the argument structure with their own piece of semantic information (the semantic link by which each premise give support the underlying inferential process towards the conclusion), which can have different natures (e.g., causal, factual, definitional) [7].

In general, we can consider arguments as structures which may be attacked (or supported) at specific critical points of their structure. In this regard, we can say that the hold of an argumentation scheme has a minimum amount of critical positions which corresponds to the number of premises (because each premises can be questioned) plus at least one critical point for the inferential step connecting the premises to the conclusion, plus at least one rebuttal stating the negation of the conclusion. In this regard, the argument from vicarious liability can be represented as having four basic critical points or critical positions (see Figure 1).

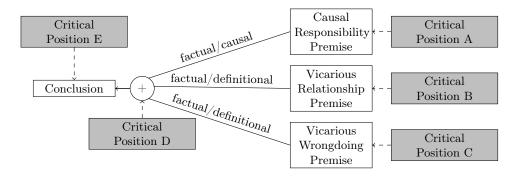


Fig. 1. Structure of the Argument from Vicarious Liability, showing the semantic link connecting the premises to the conclusion. Dashed connections are potential attacks or supports heading towards the critical positions of the scheme.

Critical Questions are positioned at critical position A, B and C. At these positions, other arguments might give an attack (or a support), which will directly attack (or support) the semantic link provided by the corresponding premise.

The first premise, for example, can be attacked or supported by a causal argumentation scheme. Instead, at position B and C the support or attack to the hold of the argumentative structure can come from a verbal classification scheme, since the premises' semantic information is mostly dedicated to factual/definitional elements (namely the nature of the relationship between wrongdoer and the potentially liable agent, as well as the nature of the scope under

which the wrongdoing occurred). At position D, attacks/supports are meant to target the inferential steps from premises to conclusion. This also includes the attack to the structure as a whole. In other words, attacks at critical position A, B and C are referred to the so-called *undermining* attack, while an arrack at position D refers to the *undercut* attack. Finally, we also mentions critical position E, the position for the *rebuttal* attacks, which occur when the conclusion is directly attacked by another argument.

Relationships with other schemes As mentioned before, the first critical position can be "stress-tested" when the first premise is attacked (or supported). Having a causal semantic link, this critical position is physiologically prone to be attacked (or supported) by causal schemes [15, 3] such as the argument from cause to effect, the argument from correlation to cause. Regarding the other two premises, they can be stressed (or supported) by the use of a verbal classification schemes [12], which are meant to further specify, semantically, the nature of the involved relationship or the scope under which the wrongdoing occurred (since these two premises can be attacked/supported mostly with respect to the definition of the two key concepts they convey, namely the words "relevant" and "scope").

Another important aspect which is worth mentioning is that we see this scheme from vicarious liability as a part of a more general family of schemes from liability, which are not yet available in literature, and whose internal relationship should be explored on the basis of the existing legal theory. In this regard, we assume that an argument from vicarious liability is likely to be a descendant of two "parent schemes" belonging to the family of the arguments from liability, namely the argument from strict liability and the argument from secondary liability. While further research is needed to explore this ontological classification, a potential classification of these schemes might look like the scheme in Figure 2.

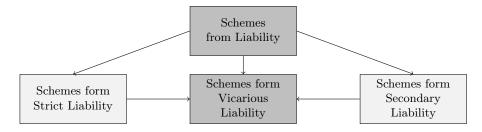


Fig. 2. Classification of some of the envisaged schemes from liability.

Interactions between liability and causality in legal argumentation

Although this paper does not aim at describing the complex interplay between liability and causation [16, 10], we argue that more efforts are required to clarify some of the main interactions between these two spheres from the argumentative point of view, providing an account of how this interplay is represented in different schemes from liability.

From this point of view, the scheme from vicarious liability offers a privileged perspective, because it is located in the context of strict liability, where liability arises even if the person who is targeted by liability is not aware of the wrongdoing for which he is considered liable. This kind of liabilities may be considered, from an argumentative point of view, as belonging to what we call argumentation schemes from strict liability (as depicted in Figure 2). From a more abstract theoretical point of view, they dramatically remind us the necessity to keep in mind the difference between causal and legal responsibilities when evaluating wrongdoings.

In the case of our scheme from vicarious liability, it seems that liability can be generated from a fact even if there is no causal link between the person considered vicariously liable and the wrongdoing. This has the effect of extend somehow the scope of the liability for that wrongdoing, creating a "transfer" of liability from the wrongdoer (whose liability coincide with the actual causation) to the agent who is hierarchically responsible for the wrongdoer's actions if these actions occur in the context of the relationship between the two agents (and this "extended" liability thus goes beyond actual causation). It would be interesting to see what kind of potential interactions exist from the argumentative point considering different types of schemes from liability. In other words, it would be interesting to explore argumentation schemes as tools for understanding the interactions between liability and causality in legal reasoning. We leave this to future research.

4 Mohamud v. WM Morrison Supermarkets

The case *Mohamud v VM Morrison Supermarkets* is a very famous example of vicarious liability. The case was focused on the interpretation of the second limb of the above-mentioned two-stage test, which is sometimes referred to as "close connection" or "sufficient connection" test.

Facts. A man named Mr. Mohamud, who is of Somali descent, pulled over at a Morrison petrol station. The station's employee, Mr. Khan, was working at the kiosk and had the responsibility of serving customers and ensuring the proper functioning of the petrol pumps and the kiosk. Mr. Mohamud went inside the shop to inquire about printing some documents, to which Mr. Khan responded with swear words. Upon objecting to being sworn at, Mr. Khan ordered Mr. Mohamud to leave and used foul and racist language. Mr. Mohamud left the shop, got back in his car, and was about to drive away when Mr. Khan approached him, opened the passenger door, and told him never to return to the petrol station. When Mr. Mohamud asked Mr. Khan to step out of the car, he punched him in the head. Mr. Mohamud got out of the car to close the passenger door, but Mr. Khan continued to attack him, striking him and kicking him until he fell to the ground. Despite the efforts of his supervisor to stop him, Mr. Khan carried out the attack. As a result of the assault, Mr. Mohamud filed a personal

injury claim against Morrison, raising the question of whether the company was vicariously liable for Mr. Khan's violent actions.

County Court decision. The Court ruled that vicarious liability could not be established as the "close connection" test was not satisfied. The trial judge was unable to determine that the company was vicariously responsible for Mr. Khan's actions. In evaluating the second aspect of the vicarious liability test and applying the "close connection test" from the Lister case, the judge was unable to establish a sufficient connection between Mr. Khan's employment and the unprovoked assault. While it was acknowledged that Mr. Khan's job entailed some customer interaction, serving and assisting them, this was not deemed "sufficiently closely connected" to warrant holding the company vicariously liable for the attack. Another key factor in the trial judge's decision was that Mr. Khan had taken a deliberate action by leaving the kiosk and pursuing Mr. Mohamud onto the forecourt, going against his employer's instructions.

Court of Appeal decision. Mr Mohamud appealed the first instance decision but the Court of Appeal upheld the decision. The reasoning was similar to the first instance decision but went further by stating that, since Mr. Khan's responsibilities did not involve a high likelihood of conflict, merely having interaction with customers in his role was not enough to make his employer vicariously liable for his violent behavior.

Supreme Court decision. Mr. Mohamud took his case to the Supreme Court and asked for the "sufficient connection" test to be replaced with a "representative capacity" test. This proposed test was broader and asked whether a reasonable observer would consider the employee to be acting in a representative capacity for the employer at the time the tort was committed. This focus would not be on the closeness of the connection between the employee's work and the tortious conduct, but would relate to the setting the employer created. Mr. Mohamud argued that the "representative capacity" test was met as Mr. Khan, an employee responsible for serving customers at the petrol station, was the human representative of the employer and the employer created the setting by placing Mr. Khan in close physical contact with him. However, the Supreme Court rejected the "representative capacity" test, considering it unnecessary as it did not differ substantially from the Lister test. The judges preferred the broad application of the "close connection" test, which considered Mr. Khan's violent act to be sufficiently closely connected to his employment for Morrison to be vicariously liable. One of the judges argued that Mr. Khan leaving the kiosk to follow Mr. Mohamud to his car did not break the connection, stating that it would not be fair to say that Mr. Khan had "taken off his uniform metaphorically" when he stepped out from behind the counter. Therefore, the Supreme Court upheld Mr. Mohamud's claim and determined that Morrison was vicariously liable for Mr. Khan's actions.

Argumentative analysis The first judge refuted the argument of the appellant according to which Morrison Supermarkets were vicariously liable because the second question (related to the "close connection") was answered negatively. The trial judge reached this conclusion by using the critical question of the

sufficient connection (i.e., the "close connection test" from the case of Lister v Hesley Hall), to which he answered negatively: according to the trial judge the connection between the wrongdoing and the relationship is not sufficient, i.e., the wrongdoing did not happen in the sufficiently within the employer-employee relationship. The judge supported this conclusion that the sufficient connection was not met by adding that Mr Khan went out of the shop against the instructions of his employer. Once the judge undermined the third premise by answering negatively to the sufficient connection critical question, the inferential step from the premises to the conclusion was not acceptable.

The second judge presented a similar reasoning, using the critical question of the sufficient connection to affirm that the the wrongdoing did not happen within the scope of the employer-employee relationship. This time the judge used an even stronger argument by stating that Mr Khan responsibilities did not include the likelihood of a conflict and the mere confrontation with a customer does not justify the vicarious liability of the defendant. Again, this meant that the inferential passage from the premises to the conclusion of the argument from vicarious liability was rejected, because the third premise was undermined.

The last judge, instead, answered positively to the sufficient connection critical question. Therefore granting the inferential passage from the three premises to the conclusion. It is interesting to note that the appellant, coming from two negative decisions on the sufficient connection critical question, proposed to replace such critical question with a new one, in order to facilitate the inferential passage to the conclusion of the argument from vicarious liability.

Figure 3 summarises the inferential steps that judges undertook with respect to the argument from vicarious liability.

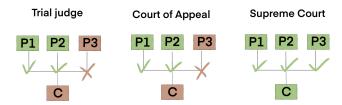


Fig. 3. Inferential processes of the three judicial level of judgment for the case Mohamud v WM Morrison supermarkets with respect to the argument from vicarious liability.

5 Cox v. Ministry of Justice

If in *Mohamud v WM Morrison Supermarkets* the Supreme Court decided about the second limb of the vicarious liability two-stage test, i.e., about the connection

between the vicarious relationship and the tortious act, in *Cox v Ministry of Justice*, the Court decided instead about the first limb of the two-stage test, which is related to the relationship between the defendant (the potential vicariously liable person) and the wrongdoer.

Facts. Mrs Cox was the catering manager at HMA Swansea and had responsibility for the kitchen operation. She supervised 4 employees and 20 prisoners. During a kitchen supplies delivery, a prisoner dropped a sack on her back while trying to carry two past her, causing injury. The incident was deemed negligent. Mrs Cox claimed that the Ministry of Justice was vicariously liable for the actions of the prisoner orderly and sought compensation for her injuries. The problem here was to assess whether a relevant relationship existed between the defendant (Ministry of Justice) and the wrongdoer. Prison rules state that convicted prisoners in state or private prisons must do useful work for up to 10 hours a day. The defendant's policy is that work instills a hard-working ethos and teaches vocational skills. Prisoners can apply to work in prison kitchens and are selected after assessments. They may be paid £11.55 per week by the Secretary of State to encourage participation. Without prisoner work, the prison service would need to incur additional costs for staff or contractors. Judges reasoned about these elements to assess whether the vicarious relationship critical question was positive. Is the relationship between the Ministry of Justice and the prisoner relevant to accept vicarious liability?

County Court decision. The trial judge ruled that the prison service was not vicariously responsible for the prisoner's negligence. He evaluated if the connection between the prison service and the prisoner was similar to that of an employer and employee and found it was not. He acknowledged that there were similarities, but noted a crucial difference. Employment is a mutual agreement where each party benefits. With prisoners, the situation is different. The prison is legally obliged to provide work and pay for it, not as a choice but as part of their penal policy. The work is meant for the prisoner's discipline, rehabilitation, and fulfillment of their duty to the community. Although the prisoner's work may improve the prison's efficiency and economy, it's not seen as furthering the prison service's business interests.

Court of Appeal decision. The Court of Appeal overturned the previous ruling. It argued that the work done by prisoners in the kitchen was crucial to the prison's operation, and if not performed by prisoners, it would have to be done by someone else. Therefore, the work was performed on behalf of the prison service and for its benefit, as part of its operations and running of the prison. In essence, the prison service gained from this work, so it should also bear its responsibilities. Although the relationship between the prisoners and the prison service was not a typical employment one, as the prisoners were connected to the prison service not by agreement but by their sentences and their wages were nominal, these differences actually made the relationship even closer to an employment one. It was based on obligation rather than mutuality.

Supreme Court decision. The Supreme Court held in favour of the claimant. They found that the defendant, the Ministry of Justice, was vicariously liable

for the prisoner's negligence. This was because the prisoners worked for the defendant's benefit, which created the risk of negligence.

Argumentative analysis

The trial judge held that the Ministry of Justice was not vicariously liable because the relationship between the defendant (Ministry of Justice) and the wrongdoer was not sufficiently relevant. In other words, the judge undermined the second premise of the scheme by answering negatively to the critical question related to vicarious relationship, thus preventing the inferential step from premises to the conclusion.

However, the Court of Appeal and the Supreme Court found that the relationship between the Ministry of Justice and the prisoner was sufficiently close and that the Ministry of Justice gained advantages from prisoner works, and therefore should also bear its responsibilities. In this way the judges allowed the inferential passage from the three premises to the conclusion.

6 Discussion and Limitations

There are two points which are worth discussing regarding the argumentation scheme proposed in this paper. The first point is related to the nature of this scheme and the possibility that this scheme is a more specific implementation of the argument from Rule. The second point is related to whether this schema is applicable universally or not.

Regarding the first point, in the analysed case study, the burden of proof is clearly related to whether or not the vicarious liability should be applied. We showed the most frequent ways in which this schema is supported or attacked (at least in Common Law). When judges argue w.r.t. the applicability of vicarious liability, their arguments mostly focus on Critical Question 1 and Critical Question 2 (related to relationship R and to its "sufficient connection" with wrongdoing W) which can be used to support or undermine (perhaps even undercut) the schema. We also showed where this happens (see critical positions in Figure 1) with specific examples of how different judges undermined the schema (Figure 3). In other words, judges build their arguments in support or attack of such applicability by checking whether some tests is passed (e.g., the "sufficient connection" test). For this reason, we believe that there is a relation with the most general argument from rule. While a simple argument from rule would be too general, this schema can better express the argumentative strategies of judges in the context of vicarious liability. The argument from vicarious liability could therefore be considered a descendant of the argument from rule, but instantiated in the context of liability.

Regarding the second point, although this schema shows a very common argumentative pattern and can be used as it is in the context of Common Law, we believe that the situation might be slightly different in countries which are not under the umbrella of Common Law. In particular, after some first analysis, it seems that we might need more Critical Questions and premises do deal with the legal systems of some countries in Civil Law. For this reason, we think that the

schema proposed in this paper can be considered as a "basic" schema, similarly to how the "basic slippery slope" has been proposed by Walton as the basic pattern underlying more specialised "slippery slope" schemes [13].

Finally, we would like to remark again that this schema should be considered as a first attempt to tackle a huger long-term research goal, namely the analysis of what we call schemes from liability. By shedding some light in this direction, we believe that some interesting discussions can be undertaken. For example, we might understand the way in which argumentative patterns are developed in the context of different kind of liability (secondary liability, strict liability, shared liability, and so on).

7 Conclusion

In this work, we proposed a new direction in the analysis of legal argumentation schemes, focused on the problem of assessing liability in legal argumentation. We started from the assumption that a sufficient account of liability in argumentation schemes is currently missing, despite the pioneering effort in [14]. Furthermore, liability and causality (i.e., legal responsibility and causal responsibility) are topics which are extremely frequent in legal reasoning, but an account of their complex interaction is still missing from the argumentative point of view.

Starting from these two assumptions, we firstly argued that there is need for further exploration of what we call the family of *schemes from liability* and we propose an example of scheme which fits into this category, and which shows a type of interaction between causality and liability, where causal responsibility does not coincide with legal responsibility, as can be seen in many cases of strict liability. We called this scheme Argumentation Scheme from Vicarious Liability.

Furthermore, we showed that our proposed scheme is crucial in the legal tradition, by offering two important and famous case studies where judges discussed whether a vicarious liability was applicable or not by using this kind of scheme.

We then discussed that this schema can be considered a first "basic" schema from vicarious liability, since its applicability outside the Common Law sphere, might require some adjustments. Furthermore, we argued that it might very likely be a descendant of the argument from rule, despite being specifically related to context of vicarious liability.

We are currently working on the development of a computational model for this scheme. In the future, further works are needed to describe the family of argumentation schemes from liability, and their internal relations, from an ontological and logical point of view. Moreover, while we showed a type of interaction between causality and liability, the complexity of their interplay in argumentation deserve further explorations. Finally, the potential relations between these schemes from liability and other existing schemes should be explored more in depth, for example in terms of what kind of schemes can be frequently found in support or attack of these schemes from liability, including the interaction with new compendium of legal schemes proposed in [14].

References

- 1. Contissa, G., Laukyte, M., Sartor, G., Schebesta, H.: Assessing liability with argumentation maps: An application in aviation law. In: JURIX. pp. 73–76 (2013)
- Feng, V.W., Hirst, G.: Classifying arguments by scheme. Proceedings of the 49th annual meeting of the association for computational linguistics: Human language technologies pp. 987–996 (2011)
- 3. Hahn, U., Bluhm, R., Zenker, F.: Causal argument. Oxford, UK: Oxford University Press (2017)
- Lawrence, J., Reed, C.: Argument mining using argumentation scheme structures. COMMA pp. 379–390 (2016)
- Liga, D.: Argumentative evidences classification and argument scheme detection using tree kernels. Proceedings of the 6th Workshop on Argument Mining pp. 92–97 (2019)
- Liga, D., Palmirani, M.: Argumentation schemes as templates? combining bottomup and top-down knowledge representation. CMNA@ COMMA pp. 51–56 (2020)
- 7. Liga, D., Palmirani, M.: Uncertainty in argumentation schemes: Negative consequences and basic slippery slope. CLAR pp. 259–278 (2020)
- Macagno, F.: Argumentation schemes in ai. Argument and Computation 12(3), 287–302 (2021)
- Macagno, F., Walton, D., Reed, C.: Argumentation schemes. history, classifications, and computational applications. History, Classifications, and Computational Applications (December 23, 2017). Macagno, F., Walton, D. & Reed, C pp. 2493–2556 (2017)
- 10. Moore, M.S.: Causation and responsibility: An essay in law, morals, and metaphysics. Oxford University Press on Demand (2009)
- 11. Toulmin, S.E.: The uses of argument (1958)
- 12. Walton, D.: Argument from definition to verbal classification: The case of redefining'planet'to exclude pluto. Informal Logic 28, 129–154 (2008)
- 13. Walton, D.: The basic slippery slope argument. Informal Logic ${\bf 35}(3),\ 273–311$ (2015)
- Walton, D., Macagno, F., Sartor, G.: Statutory Interpretation: Pragmatics and Argumentation. Cambridge University Press (2021). https://doi.org/10.1017/9781108554572
- 15. Walton, D., Reed, C., Macagno, F.: Argumentation schemes (2008)
- 16. Wright, R.W.: Causation in tort law. Calif. L. Rev. **73**, 1735 (1985)