OVERCOMING FLAWS IN THE DEDUCTIVE LEGAL PROCESS BY MASTERY OF SYLLOGISTIC LOGIC – ELEMENTARY!

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Abstract

Law students must show the logical connections which link the relevant legal principles and the facts of their question whenever they answer problem questions. The most suitable context to express these links is the minor premise of a syllogism, or within their 'application' (the 'A' in the I-R-A-C acronym). When law students fail to demonstrate these logical links, the outcome might be the fallacy of a non sequitur or an argument which begs the question. A fundamental understanding of syllogistic logic, and in particular the alignment of the major and minor premises of a syllogism, will arguably help to eradicate these fallacies.

I Introduction

Logical errors committed by first-year law students can often be explained by their inability to understand fundamental syllogistic logic. These errors can largely be overcome by a fundamental understanding of syllogistic logic. This paper explores these arguments in two parts. The first part, titled 'Understanding Deduction and Syllogistic Logic,' explains the essential character of deduction and of syllogistic logic. This part introduces the fundamental scheme of the syllogism and its form, and explores the idea that for the purposes of legal analysis in first year legal studies, it is enough to know that for a syllogism to reach a logical conclusion, both its major and minor premises must be true.[1]

The second part, titled 'The Fallacies of Non Sequitur and Begging the Question' explores the fallacies of *non sequitur* and begging the question. Two reasons for selecting these fallacies are that law students seem to commit them frequently,[2] and that they demonstrate how an incomplete understanding of syllogistic logic can cause errors. The author suggests that law students with an understanding of syllogistic logic, including that of the basic scheme of the syllogism, will recognise and overcome these potential fallacies.

II Understanding Deduction and Syllogistic Logic

The Merriam-Webster dictionary defines 'syllogism' as:

> A deductive *scheme* of a formal argument consisting of a major and a minor premise and a conclusion (as in 'every virtue is laudable; kindness is a virtue; *therefore* kindness is laudable') ... deductive reasoning.[3]

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1 Kenneth Yin and Anibeth Desierto, *Legal problem-solving and syllogistic analysis: a guide for foundation law students*, (LexisNexis NSW. 2016).

2 Judge Ruggero J Aldisert described the fallacy of *non sequitur* is as 'the best known fallacy in the law' in Ruggero J Aldisert, *Logic for Lawyers: A Guide to Clear Legal Thinking*, (National Institute for Trial ' Advocacy, USA, 3rd ed, 1997) 11–28. See also Yin and Desierto, above n 1, 38.

3 Merriam-Webster dictionary <https://www.*Merriam-Webster*.com/dictionary/syllogism > (emphasis added).

'Deductive reasoning' at its most literal therefore embraces syllogistic logic and vice versa. Leaving aside purely semantic or literal definitions, we added emphasis to'*scheme*' to underline the fact that a syllogism has a specific framework, and '*therefore'* to stress the idea that a syllogistic conclusion arises as the logical outcome of both its major and minor premises.[4]

Sherlock Holmes famously 'deduced' solutions to crimes. The title of this paper is an allusion to him and, since Sherlock-speak will be generally familiar to most readers,[5] a convenient entrée to our primary discussion might be to ask what Holmes himself meant by it. Indeed, so notorious is the idea of Sherlockian deduction that *Merriam-Webster* provides its own dedicated definition of it as though it were a term of art, namely: [6]

> Holmes himself refers to his method of reasoning as *deduction*,[7] and the word appears many times in the original stories (as does the verb *deduce*). A related word is *induction*, which means 'inference of a generalized conclusion from particular instances.' Holmes probably inferred the general from the specific as often as he inferred the specific from the general, but *induction* is never used in the stories. Unsurprisingly, given the relationship between logic and math, both words also have mathematical meanings.

Professor Anita Schnee, whose views are diametrically contrary to the idea of Sherlockian 'deduction' but appear to be consistent with *Merriam-Webster's* definition above, explained induction and deduction respectively, as '[i]nduction *creates and evolves* rules; deduction *applies* them.'[8] Consistent with Professor Schnee's explanation of induction, Professor James Gardner usefully explains the 'grounding' of a major premise, as the process of 'supporting' a major premise to allow a target audience to understand why its premises are true.[9] To illustrate the process of 'grounding' and explain when it is necessary to ground the premises of a major premise, Professor Gardner uses the famous 'Socrates syllogism' namely: 'Major Premise: All men are mortal. Minor Premise: Socrates is a man. Conclusion: Therefore Socrates is mortal.'[10]

Professor Gardner explained that as most people understand the meanings of 'man' and 'mortality', one would not usually need to ground the major premise of the Socrates syllogism. If however there is an argument on which response is required for the question of mortality, Professor Gardner would have arguably referred to a hypothetical medical expert who might say that in accordance with medical science, no person ever lived more than 120 years or so.[11] Sir Arthur Conan Doyle's[12] view had thus arguably misunderstood 'deduction' because, contrary to its meaning, his discernment of it embraced the mental processes of both induction and deduction, which were conflated within Sherlock-speak. For the law student, the outcome of a similar failure to understand the movement between these two distinctly different mental processes might result in the logical flaws discussed below.

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4 Bradley Clary and Pamela Lysaght, *Successful Legal Analysis and Writing: The Fundamentals* (West/Thomson Reuters 3rd ed, US, 2010) 82.; Yin and Desierto, above n 1, 7.

5 Perhaps this might be attributed in part to the influence of pop culture: <http://www.bestofneworleans.com/thelatest/archives/2016/12/30/sherlock-returns-with-a-new-season-on-pbs- starting-sunday>.

6 <https://www.Merriam-Webster.com/words-at-play/10-sherlock-holmes-words/deduction>.

7 Merriam-Webster dictionary, above n 6 (emphasis in original).

8 Anita Schnee, 'Legal Reasoning: "Obviously"' (1997) 3 *Legal Writing: The Journal of the Legal Writing Institute* 105, 117 (emphasis added). See also Yin and Desierto, above n 1, 11.

9 James A Gardner, *Legal Argument: The Structure and Language of Effective Advocacy* (LexisNexis US, 2007) 28.

10 Gardner, above n 9, 4.

11 Gardner, above n 9, 132. See also Yin and Desierto, above n 1, 64.

12 Merriam-Webster dictionary, above n 6.

I-R-A-C is the acronym for Issue-Rule-Application-Conclusion. Law students just starting legal studies, will likely have *some* familiarity with I-R-A-C, since it is the formulaic legal problem solving template usually taught early in first year law.[13] The idea that I-R-A-C has a syllogistic core, with the 'R' (for 'Rule') corresponding with the major premise, and the 'A' (for 'Application') with the minor premise, is frequently expressed in American legal pedagogy.[14] Professor Anita Schnee for example said that I-R-A-C was virtually a syllogism, describing I-R-A-C as '[a]nother way of saying "the deductive syllogistic process"'.[15]

Professor Schnee's definitions of induction and deduction referred to earlier[16] are particularly useful for a discussion of syllogistic logic and I-R-A-C because they explain that induction is the mental exercise invoked in the creation of the 'Rule' (or major premise), and deduction in the creation of the 'Application' (or minor premise). Her definitions also thereby incorporate an explanation of the relationship or movement between a Rule and its Application within the context of the I-R-A-C template.[17]

There are many websites dedicated to exploring syllogistic fallacies.[18] The need for law students to understand syllogistic fallacies, is however, more limited than someone studying logic for logic's own sake, because an understanding of syllogistic logic, including its fallacies, is only a means to the end of practically achieving a closer understanding of legal analysis. Professor James Boland explained this clearly:[19]

> Legal writing professors should not attempt to plumb the depths of all forms of syllogistic reasoning and their fallacious pitfalls, but merely give students an adequate foundation on which they can build so as to eventually achieve a higher level of logical thinking and argument.

Professor Boland also noted that:[20]

> At this level (for first year students) it is enough for students to know that in order for a syllogism to reach a logical and correct conclusion, both the major and minor premise must be true.

Professor James Gardner explained that the adversarial system gives rise to a 'convenient sorting mechanism' that 'takes the party's alignment and the relevant legal principles and converts them into the party's positions in the case'.[21] The fact that an advocate presents legal argument not in the abstract but in the context of their case, then means they do not have to explore every combination of possibilities arising from every conceivable permutation of fact and law. As Professor Gardner explained, 'the number of syllogisms for use in any given case is limited' since each syllogism does not arise in a vacuum, but only in the context of a specific case in which specific parties seek specific judicial relief.[22]

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13 See, eg, Catriona Cook et al, *Laying Down the Law*, (LexisNexis Butterworths, 9th ed 2014) 550. This is the foundation-skills text which is prescribed in the unit I teach, *Legal Process.*

14 See, eg, Nadia E Nedzel, *Legal Reasoning, Research and Writing for International Graduate Students,* (Wolters Kluwer, 3rd ed, 2012) 70; Schnee, above n 8, 106; and James M Boland, 'Legal Writing Programs and Professionalism: Legal Writing Professors can join the Academic Club' (2006) 18(3) *St Thomas Law Review* 711, 721 – 724.

15 Schnee, above n 8, 106.

16 Schnee, above n 8.

17 See also Yin and Desierto, above n 1, 6.

18 <http://www.literarydevices.com/syllogism/>; <http://www.skepticsfieldguide.net/2008/10/syllogistic-sophisms.html>; <http://www.fallacyfiles.org/syllfall.html>.

19 Boland, above n 14, 721; see also Yin and Desierto, above n 1, 37 and Gardner, above n 9, 11.

20 Boland, above n 14, 721; see also Yin and Desierto, above n 1, 11.

21 Gardner, above n 9, 13; see also Yin and Desierto, above n 1, 55.

22 Gardner, above n 9, 11.

A law student is in the same position as Professor Gardner's advocate in the obvious sense that when directed to answer a problem solving exercise, they actually are not even at liberty to create an answer that addresses an infinite number of hypothetical possibilities but *must* confine their analysis to the problem and issue presented. Questions do sometimes arise early in the semester on whether the law is really as categorical as Professor Boland seems to suggest when he said that 'it is enough for students to know that in order for a syllogism to reach a logical and correct conclusion, both the major and minor premises must be true'.[23] It is arguably true that the outcome of a legal argument is in reality less certain than the certainty apparently contemplated by Professor Boland's comment, as recognised by Professor James Gardner who in his own syllogism-based work, stated that '[t]here is far more play in the joints of the law than the fiction of legal determinancy would have us believe'.[24]

Nevertheless, we should not lose sight of the fact that Professor Boland had directed his earlier comment to first year law students, just as this paper is directed to first year law lecturers. Boland said that knowledge of syllogistic logic would give first year students the foundation to achieve higher levels of thinking at more sophisticated levels,[25] and the author agrees with him. Subsequently, at more advanced stages of their studies, law students arguably need to engage in the process of legal problem solving at a higher level of doctrinal knowledge and to display a more sophisticated application of legal skills, but at no stage is it be necessary for them to explore the infinite depths of syllogistic logic, because as explained by Professor Gardner, the nature of adversarial advocacy in our legal system would not demand it.[26]

Professor Boland's argument that for first year law students it is enough to know that in order for a syllogism to reach a logical and correct conclusion, both the major and minor premises must be true, assumes that first year students need to have an understanding of how the major and minor premises of a syllogism are created in the first place – in particular, that the major premise is the syllogistic vessel within which the process of induction, or rule evolution, is expressed, and that the minor premise is where the process of deduction, or the application of that rule, is performed.[27]

If one wants to use the I-R-A-C acronym, these are in turn the respective 'Rule' and 'Application' of the acronym. We recount that the scheme of the syllogism comprises its major premise and minor premise.[28] These form part of the definition of the syllogism template itself. Professor Nadia Nedzel stressed the inviolability of the requirement that the major and minor premises, (or 'Rule' and 'Application' respectively if one uses the vocabulary of the I-R-A-C acronym) be kept entirely separate, when she said:

> Mixing rule and application, like failure to fully explain, also confuses the reader. The client's situation should not be discussed or even referenced in the rule section, because it distracts the reader from a clear analysis and comprehension of the applicable law.[29]

The idea that putting an argument in its syllogistic form might assist in revealing its fallacies finds support in Immanuel Kant's famous quote: 'Fallacious and misleading arguments are most easily detected if set out in correct syllogistic form'.[30] Kant's quote lends some pedagogical support to one of the fundamental themes in our paper, namely that familiarising one with the

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23 Boland, above n 20; see also Yin and Desierto, above n 1, 11.
24 Gardner, above n 9, 25.
25 Boland, above n 19.
26 Gardner, above nn 21 and 22.
27 Schnee, above n 8.
28 Merriam-Webster dictionary, above n 3.
29 Nedzel, above n 14, 88; see also Yin and Desierto, above n 1, 54.
30 <http://izquotes.com/quote/358477>.

fundamental template or scheme of the syllogism is an essential milestone in achieving an understanding of fundamental syllogistic logic itself.[31]

The next Part explores the fallacies of *non sequitur* and *begging the question*, and discusses practical ways to circumvent them. The exercises outlined apply nothing more than a fundamental understanding of syllogistic reasoning, that the author suggests is an adequate foundation on which to recognise and overcome the fallacies.

III The Fallacies ff Non Sequitur and Begging the Question

A working definition of a 'fallacy' is by Judge Aldisert: 'In ordinary usage, then, 'fallacy' can be used to describe a false or erroneous idea. But in the law, as in logic, the term has a more specific meaning; *it refers to the logical form or content of a syllogism*.[32] Consistent with Judge Aldisert's definition, 'fallacy,' at least in its application to legal analysis, arguably has a narrower meaning than in everyday use, as its parameters are confined to *syllogistic* fallacies, rather than false or erroneous ideas generally. Judge Aldisert's definition is thus particularly apt as it suggests that the study of legal fallacies should overlap with a study of syllogistic errors or falsities since the first is in substance, a definition of the second. Judge Aldisert's definition thus arguably gives significant pedagogical validation to this paper's discussion of syllogistic reasoning as a *practical* means to assist law students achieve a closer understanding of legal analysis. Furthermore, it is unnecessary to argue about the actual classification of the fallacy in any particular instance. Judge Aldisert said that:

> Although there is often agreement as to the existence of a fallacious argument, the method of labelling or characterising them is up for grabs. Each logician seems to have his or her own method of classification.[33]

Each example below is advanced as a convenient representation of a particular fallacy, whilst recognising that another logician might have a different view as to its precise pedagogical classification. This relatively utilitarian approach is in turn, arguably consistent with Professor Boland's argument that for first-year law students it is broadly enough for them to know that both the major and minor premises of a syllogism must be true for a syllogism to reach a logical and correct conclusion.[34] The logical corollaries of Professor Boland's argument are that if the major and premises could *not* yield a true and correct conclusion, then the 'syllogism' would be flawed.

The next section explains what is meant by *non sequitur* and what a flawed syllogism is, and the underlying reason for the flaw, by applying the fundamental principles of syllogistic logic described here. Numerous definitions of *non sequitur* exist in standard dictionaries,[35] including the following in *Merriam-Webster*: 'An inference that does not follow from the premises.'[36] Apart from its stark simplicity, *Merriam-Webster's* definition is particularly appropriate for this paper's discussion purposes because it aligns well with Professor Boland's advice that: for a syllogism to reach a logical and correct conclusion, both the major and minor premise must be true,[37] and the idea that the syllogistic 'conclusion' is the 'therefore'.[38]

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31 See the first paragraph of this paper's introduction.
32 Aldisert, above n 2, 9-1 (emphasis added).
33 Aldisert, above n 2, 9-4
34 Boland, above n 14, 721; see also Yin and Desierto, above n 1, 6.
35 See, eg, <https://en.wikipedia.org/wiki/Non_sequitur_(logic)>; <https://www.vocabulary.com/dictionary/non%20sequitur>.
36 See Merriam-Webster Dictionary <http://www.merriam-webster.com/dictionary/non%20sequitur>.
37 Boland, above n 20.
38 Merriam-Webster dictionary, above n 3.

Given the definition's simplicity, one might think that it *should* be easy to spot a *non sequitur.* Thus if one propounds an argument where the major and minor premises do not align then without more, the argument by definition is a *non sequitur*. Although the process sounds circuitous, it is important to realise that to understand this, the respective arguments need to be presented at the outset in the framework (namely the *scheme*[39] of a syllogism). The obverse is that one must be equipped with a prior understanding of syllogistic logic to understand this.

This exercises below examine flawed 'syllogisms'. Incidentally, the description of these as 'syllogisms' at all is itself only a convenient shorthand to describe something which is in a general syllogistic *form* since it is at least open to argument that if the major and minor premises do not align to yield a supportable conclusion, the argument might not have the character of an authentic 'syllogism'.[40] Immanuel Kant's prescience is noted here when he said that 'fallacious and misleading arguments are most easily detected if set out in correct syllogistic *form.*'[41]

Exercise 1

All fast cars are red.
Janice has a red car.
Janice's car is fast.

The flaw in the argument is, or should be readily apparent; it is a *non sequitur* because the 'conclusion' does not flow from the premises. Or, to say virtually the same thing, the conclusion cannot be characterised as the syllogistic 'therefore' which arises from the preceding two premises. Kant's famous observation that fallacious and misleading arguments are most easily detected if set out in correct syllogistic form can be tested here by trying to express the argument in something other than its 'correct syllogistic form'. Noting that a definitive ingredient of a syllogism is that it must have a major and minor premise, this can be achieved by abandoning the fundamental syllogistic form of the original flawed answer and 'mushing' all three paragraphs. If we do so, the result might be either or both (or neither) of the below:

Janice has a fast car because it is red.
We know that Janice's car is red because it is fast.

In neither example can the reader arguably follow the analytic path. The respective conclusions that Janice has a fast car which is red or that we know Janice's car is red because it is fast, seem to draw upon some implied major premise that all red cars are fast, or that all fast cars are red, but in the form expressed, the reader cannot really tell which, if either, analytic path was taken. The way these are expressed is actually starkly reminiscent of the Sir Arthur Conan Doyle's error of conflating the mental processes of both induction and deduction within Sherlock-speak.[42] The error then becomes evident in the failure to express the argument in its correct syllogistic form which is arguably, a virtually a tautologous statement, since a syllogism by definition needs to contain a major premise which expresses the inductive process, and a major premise, which expresses the process of deduction.[43] By putting the argument in its syllogistic form, an author is at least compelled to confront the path of 'logic' which leads to that conclusion.

The next part of the exercise invokes an understanding of fundamental syllogistic reasoning to explain *why* the reasoning is logically flawed. Consistent with this paper's core arguments,

39 Merriam-Webster dictionary, above n 3. Note the explanation for emphasising 'scheme' in that definition.
40 Ibid.
41 Kant, above n 30.
42 Merriam-Webster dictionary, above n 6.
43 This is a central theme in this paper, but see especially Schnee, above nn 8, 15 & 16.

the following discussion is prefaced by saying that such an understanding is both adequate and sufficient to explain those logical flaws. Returning to the original flawed example, the major premise is a rule created from '*fast* cars' and not '*red* cars'. On the other hand, if the minor premise was 'Janice's car is fast', then the 'conclusion' that 'Janice's car is red' would be supportable syllogistically.[44] To understand the reason why the syllogism is flawed and the conclusion unsupportable, a reader need apply only their knowledge of fundamental syllogistic logic, namely that the process of induction which finds expression in the major premise is that of rule creation, whereas deduction, which applies the rule, is contained in the minor premise.[45] The minor premise does not here apply the major premise, and no supportable *syllogistic* conclusion can be derived; or, what is saying precisely the same thing, as syllogistic reasoning and deduction are essentially synonymous,[46] that no legitimate process of deduction has been performed.

An example based on authentic legal principles can test the above logic. Consider the principle in the following statement: 'In order to succeed in an action in unconscionability, the plaintiff must have been under a special disadvantage or disability.'[47] Now read the following passage:

> Ronald did not tell Phillipa that the computer that he was trying to persuade her to buy had features that were utterly worthless to her and that despite its exorbitant price, she would have had no use for such a computer, which was for the purposes of industrial stocktaking and would have been useless to a person like Philippa.
>
> Ronald acted unconscionably and Philippa is entitled to relief.

If our analysis traverses the same analytic path as Janice's car, it should be readily apparent that the above argument betrays an inability on the part of its author, to organise the premises in their correct syllogistic 'scheme'. The outcome is that a supportable conclusion cannot be achieved. To illustrate how a response might be presented in its correct syllogistic form, take the answer one analytic step further, staying for now with the idea that the question is whether Ronald acted unconscionably. Australian law students and law teachers who are familiar with the principles of unconscionability in *Amadio Commercial Bank of Australia Ltd v Amadio (1983)*[48] which is a module in first year contract law studies, would know that its essential elements as explained by Deane J: 'A is under a special disadvantage or disability; B had knowledge of A's disadvantage; B proceeds to exploit that disadvantage unconscientiously in order to obtain A's consent to the transaction.'[49] There are thus three essential elements of unconscionability prescribed in *Amadio*: the fact of a special disadvantage, knowledge of it on the part of the other, and the exploitation of that disadvantage.

One does not discuss the second and third elements unless the requirement of a special disadvantage (the first element) is satisfied first. In turn, consistent with the formulaic syllogistic

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44 Note the more detailed discussion at Yin and Desierto, above n 1, 40.

45 See Schnee, above n 8; Yin and Desierto, above n 1, 40.

46 Merriam-Webster dictionary, above n 3.

47 Based on *Commercial Bank of Australia Ltd v Amadio* (1983) 151 CLR 447.

48 *Commercial Bank of Australia Ltd v Amadio* (1983) 151 CLR 447 per Deane J at p 474. These elements were usefully paraphrased and summarised in *Gooley Radan and Vickovich, 3*rd *ed, page 371* and the passage in that text has been reproduced above. JV Gooley, Peter Radan and Ilija Vickocic, *Principles of Australian Contract Law: Cases and* Materials (LexisNexis, 3rd ed, 2015), 371.

49 *Commercial Bank of Australia Ltd v Amadio* (1983) 151 CLR 447 per Deane J. These were usefully paraphrased and summarised in *Gooley Radan and Vickovich, 3*rd *ed, page 371* and the passage in that text has been reproduced above. JV Gooley, Peter Radan and Ilija Vickocic, *Principles of Australian Contract Law: Cases and* Materials (LexisNexis, 3rd ed, 2015), 371.

form, to achieve a supportable conclusion (the 'therefore'[50]) concerning the first element of 'special disadvantage', one must create a minor premise to address that element. Assuming that the facts in the question would support it, the following draft answer is part of a syllogism (or I-R-A-C), to address the issue of whether Philippa did suffer from a special disadvantage, set out in its correct syllogistic form:

> Draft Answer
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> *Major Premise:* The first element of unconscionability is that the innocent party would need to be under a special disadvantage – *Commercial Bank of Australia Ltd. v Amadio.* [51] The definition of a 'special disadvantage' is that it is a characteristic which seriously affects the ability of the innocent party to make a judgment as to his/her best interests, and that a mere inequality of bargaining power is insufficient.[52] The characteristic in Amadio which amounted to a special disadvantage was a lack of language skills on the part of the Amadios, who were the elderly parents of the debtor who had sought their agreement to guarantee his debts, such that they did not understand the nature of the transaction, which was a complicated security document. It was held there that this characteristic seriously affected the Amadios' ability to make a judgement in their best interests.
>
> *Minor Premise:* Philippa is 'computer illiterate'. She did not suffer a language disability as did the parents in *Amadio* but it is arguable that she satisfies the requirements of a 'special disadvantage'. The fact that she had no knowledge of technological matters is relevant. Her computer-illiteracy is in this sense essentially analogous to the language difficulties suffered by the parents in Amadio. Analogously with the complicated security documents in Amadio, the present case involves the purchase of what was described as an ultra-modern computer with features that were particularly sophisticated and modern, and being sold at an exorbitant price….
>
> *Conclusion:* Philippa likely had a special disadvantage.

The author of the original answer had wrongly referred in their 'minor premise' to the fact that Ronald did not tell Philippa that the subject computer was, despite its exorbitant price, of no use to her. There is no logical link between this fact and the rule in the major premise. This resulted in a classic *non sequitur* such that the ultimate answer could not be logically supported. The 'correct' answer is not legally complete (its content goes no further than to illustrate the fundamental syllogistic requirement that the minor premise must apply the rule (law) set out in the major premise) but is now at least expressed in its correct syllogistic form. On the assumption that the author possessed an adequate understanding of the principles of unconscionability contained in *Amadio,* they would have been able to recognise the initial flaw and to reconstruct the answer in its correct syllogistic form of they understood the rudiments of syllogistic logic.

The paper now addresses the fallacy of *begging the question*. There are virtually countless definitions of the fallacy of *begging the question*, to the extent that Judge Ruggero Aldisert described the fallacy, tongue in cheek as a 'rascal' with many names.[53]From these definitions, the following one, reproduced from an everyday resource, has been selected for our discussion as it usefully covers the field for the purposes of teaching legal analysis to first year law students:

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50 Merriam-Webster dictionary, above n 3.

51 *Commercial Bank of Australia Ltd v Amadio* (1983) 151 CLR 447 per Deane J at 474.

52 Ibid.

53 For example, arguing in a circle, circular reasoning, putting the bunny in the hat, failing to prove the original proposition, using the original premise as proof of itself; see Aldisert, above n 2, 11-30. See also Yin and Desierto, above n 1, 46.

> A form of circular reasoning in which a conclusion is derived from premises that presuppose the conclusion. Normally, the point of good reasoning is to start out at one place and end up somewhere new, namely having reached the goal of increasing the degree of reasonable belief in the conclusion. The point is to make progress, but in cases of begging the question there is no progress.[54]

With this explanation in mind, consider the following draft responses which, save for some minor editing, are reproduced from the answers of the author's own law students over a few years:

> Sample Law Student Answer
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> Stealing is defined as taking something intending to deprive the other of ownership. Peter took Paul's shirt from his line and it was established that Peter intended to deprive Paul of it. Peter stole Paul's shirt.

And: Another Sample Law Student Answer

> A fixture is something affixed to the land with the result that property in the fixture passes with the land itself: Uniqema.[55] *The air conditioning was a fixture. The result was that property in the fixture passed with the land. The property in the air conditioning passed when property in the land passed.*[56]

When examples similar to the above were presented for discussion by the author to law students, a few law students suggested brazenly, that the errors were so obvious that they themselves would be unlikely to commit them. That being so, the next phase of the exercise could be particularly revealing as it might disclose whether or not those law students did in truth get to the core of understanding the nature of syllogistic logic – despite their claims. At this point, a law lecturer might direct their class to discuss whether it is possible to salvage the answers by creating from them an answer in its correct syllogistic form. In trying to 'save', say, the 'fixture' example above, you can expect some students to advocate a slight tweaking of the minor premise so that it would now read as follows (this response was reproduced from a montage of actual law student responses in the author's foundation law classes over the years):

> *The air conditioning was affixed to the ground and was thus a fixture.*

The vicious circle of *begging the question* was not broken; the answer merely expanded its radius. The argument in its tweaked variant continues to beg the very question of what it means for something to be 'affixed to the ground', and why it is said that the air-conditioning was such. The valiant but misconceived effort to overcome the fallacy by fiddling with the minor premise, arguably emphasises its definitive characteristic, namely that re-expressing the same point in a different way will not advance the analytic journey but perpetuates the same flaw. The 'correct' answer is that, limited to the information above, the answer cannot be improved.

As with *non sequitur,* we apply our fundamental understanding of syllogistic logic and then express the answer within the framework-scheme of the syllogism. We recall that *induction* is the way a rule has *evolved*, whilst the process of *deduction* requires showing how the rule is *applied.*[57] The major premise (or rule) therefore needs to contain not merely some bland definition of a 'fixture' (as in the present answer), but include the relevant propositions which go to its *evolution*, namely the discussion in case law that affected the question of whether

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54 The Internet Encyclopaedia of Philosophy, a Peer Reviewed Internet Resource. <http://www.iep.utm.edu/fallacy>.

55 *Commissioner of State Revenue v Uniqema Pty Ltd* (2004) 9 VR 523.

56 Kenneth Yin and Anibeth Desierto *Legal problem-solving and syllogistic analysis: a guide for foundation law students*, (LexisNexis NSW. 2016) online supplementary materials.

57 Gardner, above n 9.

something was or was not a fixture, and also the basis upon which the object of discussion in the case law was found to be, or not to be, a fixture. Or using Professor Gardner's description, to 'ground' (literally, in this case) the major premise.[58]

Setting out the major premise this way would then enable the comparison of similarities or differences between the facts in the question on the one hand, and the facts and propositions contained in the major premise, on the other hand. These arguments would be expressed within the minor premise of the syllogism (or the 'application', namely the 'A' in the I-R-A-C acronym).

The analytic journey can now advance, and the fallacy would thereby have been overcome. Having achieved this, the conclusion as to whether or not the air conditioner was or was not a fixture, can be said to be the legitimate outcome of both premises. By following this analytic path, the law student should see that achieving this outcome simply requires them to apply fundamental syllogistic logic, thus bringing us full circle to the start of this paper.

IV Conclusion

The formal definitions of the various fallacies are not essential, and are a handy focal point for the discussion. To define the fallacies, one only needs to look them up in any relatively sophisticated dictionary as demonstrated in this paper.[59] This process, if divorced from a discussion of the underlying causes of fallacies, would not help law students to achieve the intended learning outcome of overcoming fallacies in real-life legal problem solving. The author thus suggests that the way to avoid syllogistic fallacies is by understanding syllogistic logic itself, and knowing fundamentally how to express syllogistic reasoning in the framework or scheme[60] of the syllogism.

58 Ibid.

59 Merriam-Webster dictionary, above n 36; The Internet Encyclopaedia of Philosophy, above n 54.

60 Merriam-Webster dictionary, above n 3.