5-2014

Ought Implies Can: Why it is Wrong and How that Impacts Deontic Logics

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Abstract: In this paper I show why the principle ought implies can is false via counter-examples, why other philosophers have failed to do so, and defend my view against various objections. I also show that the inference rule Kant's Law as used in standard deontic logics and the relevance logics of Andersonian-Kangerian reduction must be equivalent to ought implies can in order to be coherent and why that makes it an invalid inference rule. I then explore how rejection of ought implies can means that there must be other ways of restricting obligation other than through ability or suffer a crazy reasons problem. I then offer one way to restrict obligations via contractual agreements.

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Section 1: Introduction

Though there has been debate over ought implies (OIC) can from an ethical perspective there has been little discussion of how the ethical side of the problem impacts a similar if not equivalent concept in deontic logic. This concept is Kant's law (KL), a commonly used rule in certain deontic logics, which can be described as the following "if x ought to do A then it must be possible for x to do A". The way that OIC is defined is typically that "in order for an agent to be morally obligated to do something it must be possible for that person to do this thing." In this work I (i) will show that OIC is false via counter-examples, (ii) show that OIC is equivalent to KL, and (iii) then explore the implications of OIC being false if OIC is considered equivalent to KL in Standard Deontic Logic (SDL) and (iv) then briefly discuss the impact one the Andersonian-Kangerian Reduction (AKR). As a conclusion to my paper I will suggest a way move past OIC-based and KL-based ethics. Though there have been many attempts to falsify OIC many of these do not actually address OIC but instead a view which I will call OIC*. OIC* can be described as "if one ought not to do something then it must be possible refrain from doing that thing." Peter Graham is one such philosopher who in his attempt to falsify OIC has instead falsified the claim OIC*(Graham 2011). Though similar to OIC, OIC* does not deal with being obligated to do an action, instead it deals with obligations to omitted actions or lack of an action.

The reason I will show that OIC is false is twofold. The first is that if OIC and KL, are true, then there are undesirable consequences for how to act in moral and legal dilemma cases. In these cases a person can become obligated to pick neither choice when faced with a moral or legal dilemma or be forced into a contradiction. One example of being obligated to pick neither choice is the Burdian's ass illustration. Though seemingly not a moral dilemma, since the agent

in question a donkey, it does an apt job of why an agent would not be obligated to pick either choice in a particular scenario, and thus can be extended to situations with more moral weight.

> Burdian's Ass Case. Imagine that a donkey has to pick from two equal and equidistant piles of hay to eat from. Since these piles of hay and in all manners equal, the donkey has no obligation to pick one over the other, because there is no difference between the two. Since there is no obligation to eat from either particular pile the donkey starves, yet had the donkey eaten one pile it would have lived.

While one could imagine simply picking one pile, if OIC and KL are true one would not have an obligation to pick one or the other. Dale Jaquette presents a similar example with more moral weight. He sets up the case for saving one twin but by doing so the other twin would die (Jacquette 1991).

> Twin Case. Here two equal twins are trapped under a rock and the caretaker of these twins has an obligation to protect both. If one twin is saved, the other dies and if nothing is done, both die. The caretaker cannot save both but only one twin.

If OIC and KL are true then the caretaker has no obligation to save either twin. Jaquette presents a formal symbolic proof which deal with the twin case. This proof encounters a conjunctive obligation which Jaquette treats as two separate obligations. By using KL Jaquette shows that one does not have an obligation to save either since by doing so the other twin would die from the rock crushing him or her. Thus it would be concluded that since the caretaker has no obligation to save either twin they both die. Though it seems that one could just pick either twin to save, the issue is that one cannot fulfill the obligation to save both as it would mean violating the obligation to save the other twin. Since that obligation is now impossible when twins are

trapped under the rock and saving one twin already breaks the original obligations because it would kill one of the twins, one is not obligated to save either if KL and OIC are true.

I find it intuitive that both twins dying is worse than one twin dying, thus my motivation for showing OIC and KL false becomes clear. By rejecting the OIC and KL claim, we can pick an option in moral dilemma cases instead of the being rid of the obligation. Of course this view is not without problems. First and foremost is that if OIC and KL are false, many of the deontic logics that use KL in the practical sense, and not the metaphysical sense, would have inconsistent proofs and be unable to move past steps that claim A has an obligation to P give conditions X, since it cannot be inferred that it must be possible to do P. The other major issue with this view is that it does not necessarily convince the diehard Kantian. It could be argued that in the twin case, one twin is being used as a means to save the other twin. Since in this view a person is being used a means to an end, a diehard Kantian would reject saving either twin since it would violate a particular formulation of categorical imperative. My response to this would be that while I intend to save one twin, I do not intend to harm the other even though it happened. Essentially I share the intuition that one can intend to do something without intending a consequence of it. Carl Ginet gives the example of pushing a large boulder with the intent to show one cannot move it, yet one actually does move via a hidden system of pulleys and levers that the boulder pusher is unaware of (Ginet 2000). Since the intent is to show one cannot move the boulder, but the boulder gets moved it can be claimed that one intended to push the boulder but not move it. Thus 0one can intend to save one twin without intending to kill the other.

The second part of my motivation is that others have attempted to show that OIC is false via OIC*, claiming that they are equivalent, however I take these two to be distinct from one

another. Graham attempts to claim that OIC and OIC* are equivalent in a footnote, which he then show why OIC* in his transplant cases. (Graham 2011)

> Transplant Case. The case starts with a doctor who ought to refrain from harvesting organs from two unconscious, but healthy patients, to save ten others patients who would die without the organs. However the doctor cannot prevent him/herself from doing so since the doctor has a compulsion to do so. This is further broken down into three different forms of compulsion.

>> Scenario A. The compulsion is a strong moral compulsion to be a utilitarian and by saving the ten patients the doctor maximizes the most amount of utility.

>> Scenario B. The doctor has a compulsion since the patients are relatives of his, and must save them.

>> Scenario C. An evil neuroscientist implants a device into the doctor such that the actions of the doctor are overdetermined. If the doctor does harvest organs the device is not activated but if the doctor refrains from doing so the device is activated and cannot refrain at from harvesting organs.

In all cases the doctor ought to refrain from an action, yet the doctor performs it anyways. So the first two cases the doctor has alternative possibilities, since the doctor can practically refrain from harvesting the organs, yet via the strong moral compulsion cannot convince him or herself to do otherwise. This is an instance of OIC* and not OIC since the doctor ought to have refrained from harvesting the organs but could not refrain harvest the organs. This does not deal with an action but an omission (where refrain is considered not acting) so instead of showing

OIC being false, OIC* is shown false. Graham later uses the cases to show why OIC is false. This is unsuccessful since only OIC* was proven false.

One objection to OIC and OIC* being two metaphysically distinct things would go as follows: the only time when OIC is different from OIC* is in a deterministic universe, thus it is not the case that one ought to refrain and do something different. Therefore OIC and OIC* are the same, assuming that determinism rules out the principle of alternative possibilities. If OIC is true, the person has in the determinist universe has no alternative possibilities to do a different action, this person cannot be morally obligated for refraining from doing something since the agent's action is determined. Specifically it is only when the agent's actions are determined that he or she is not obligated to refrain from an action, since it is impossible for the person to do otherwise. If OIC is true, then it is different from OIC* in this case since OIC* cannot hold in a deterministic universe. Since there are no alternative possibilities OIC also cannot hold since a person's actions are determined as well, so a person is not morally obligated to do anything thus the ought requirement for OIC is does not apply. I agree with the objection, but this is not a worry for my view since I do not rely on a deterministic universe to show why OIC is distinct from OIC*. Instead the basis of my distinction comes from causal relations. I claim that because omissions are distinct from actions that OIC* is different from OIC. I take OIC to be concerned with action while OIC* to deal with omissions.

Carolina Sartorio's ice cream case illustrates this asymmetry between actions and omissions.

Ice Cream Case. Imagine that there is a nearby lake where a child is drowning. If one particular person (Geoffrey) choses to act he save the child, and no one else around has

the capacity to save child, meaning Geoffrey is the only person who can save the child. Instead of saving the child Geoffrey has chosen to purchase an ice cream while a child drowns in a nearby lake. Given that this is a particularly tasty ice cream cone Geoffrey continues to eat it and does not prevent the child from drowning (Sartorio 2005).

It is not the purchasing of the ice cream that makes the child drown, since had Geoffrey done anything else besides save the child, the child would have drowned. Thus the ice cream is not the cause of the drowning, even if the ice cream was particularly tasty which prevented Geoffrey from saving the child. Since the ice cream is not a cause and savoring the ice cream is a way of omitting rescuing the child, omissions are therefore not causes, assuming that if any other action was substituted in for buying an ice cream the child would still drown (excluding the action of saving the child). Therefore a deterministic universe is not necessary to make the OIC and OIC* distinction.

One could claim that every omission is an instance of an action in some regard. I raise this worry because one could try to claim that there is no basis for the existence of OIC*, because one could claim that there always exists a token action, such as standing still. The argument for an omission being an action would go as following: even if X does not Φ X is performing an action of standing still, breathing, lying down, etc. or some other action θ. Thus no real omission of action can occur. Though it can be said that a person cannot ever omit all actions, this is not a real worry of my view. Since the only action that matters is the relevant action, my view needs not be concerned with token actions and can view token actions and omissions of relevant actions to be morally equivalent. If we take the ice cream case, the relevant action being omitted is saving the child, thus any other action which arises from that omission is not relevant, which in this example is eating the ice cream. The reasons why omissions are

different are because had any other action been taken, the relevant action is still omitted, and is merely a token action. Then it is still the case that whatever consequences that arise from the omission are still true had any other non-relevant token action been performed. With a relevant action, had any other action been performed it is not the case that whatever consequences that would have arisen from the relevant action would be the same for any other action. Since the relevant action is being omitted then it must be the case that we treat the transplant cases as cases of OIC*. Therefore since there is an asymmetry between actions and omissions OIC is distinct from OIC* and thus counterexamples must be directed towards OIC which is my goal for a portion of the paper.

Section Two: Counterexamples to OIC

In this section of the paper I will present numerous counterexamples to OIC that I find convincing. The one type of counterexample that will follow are aimed at showing that OIC is undesirable, while the second type of counterexample shows that OIC devolves into absurdity via contradiction. I will first propose each counterexample paired with obvious objections and my responses to them.

Sprinter Counter Example (1): An Olympic sprinter promises his country a gold medal. To prepare for his race he trains as hard as he can and as best as he can, and could not have done a better job in his training. During his race he is beaten. Since the sprinter has set up a moral obligation to his country via the promise he made, he has successfully fulfilled the ought criteria. Since he was beaten and could not have prepared better for the race, it was not possible for him to win the gold medal. Thus although the sprinter ought to have won the gold medal, he did not and could not. Thus OIC is false.

Objections to (1).

(a) This appeals to the following principle: if S promises to X, then S has an all-things-considered obligation (or, S all-things-considered ought) to X. Perhaps things can happen to S such that, if they happen, even though S has promised to X, S does NOT now have an all-things-considered obligation to X.

Response to (a): This general principle would not be true, but this particular case makes it true. Since it is a reasonable possibility for the Olympic class sprinter to win and Olympic race compared to an inconceivably out of shape individual, this promise can be considered an obligation. This is because there is an expectation that the sprinter can compete in the race and there is a very specific promise being made thus an obligation is created. If however the inconceivably out of shape individual promised this there would be no expectation since it would not be considered serious thus the fat slob no real obligation would be created. Thus in order for a promise to be an obligation there must be an expectation it could be actualized and must be specific enough to be testable in order to determine whether or not the obligation was fulfilled. Another way of putting this is if I sign up for a course then I have an all things considered obligation to fulfill the requirements of the course, such as a paper. If, however, I do not sign up for that course then I have no obligation. Thus if I make a promise/sign up for an obligation (via registering for a class) then I am obligated to do so, but if I say I have an obligation yet do not set it up, say the average guy promising a gold medal who would not be able to make such a promise and be held to such an obligation, then I would not have said obligation.

(b) Does S really does have an all-things-considered obligation (or that S all-things-considered ought) to win the gold medal? Even if S does promise to get the gold medal, it is more plausible to think that she, thereby, has an all-things-considered obligation to try as hard as she can to win

a gold medal, since the obligation seems to guarantee something which the sprinter cannot guarantee.

Response to (b): My response to the second portion of the objection is the athlete was very specific when he or she made the claim. The athlete has set up the obligation to win, if the athlete promised his country to instead "go for a gold medal" or "try to get the gold medal" then said athlete would only be obligated to try to get the gold medal and not win one. This would be a way for the athlete to be obligated to winning the medal, instead of trying as hard as possible, which anyone has the ability to do (trying as hard as they can). Since the athlete had made the promise, the athlete has set up the obligation. Thus even if it is not possible, there still is an obligation, though it may be overridden by future obligations. Specifically, if the athlete makes such a promise, but as it turns out does not have the ability to win later on, the obligation could be overridden by a new one, but only if the new obligation is proposed by someone. If not the old obligation still exists. So while the athlete could possibly override the obligation at some point, if a new obligation such as 'try your best', is never made then the old obligation does not vanish or is not over ridden.

(c) Consider the case where in all possible worlds that the sprinter cannot win because he or she will always face someone better. This example cannot work because there exists a dilemma. This dilemma is that for the running since either the runner has the requisite skills, capacities, and knowledge, or she does not. If she does, then she could do the thing. If she does not, then it's not plausible to think that she ought to do it but rather, it is plausible to think that she wishes to do it, or hopes to do it. Either way, OIC is not false since the runner has the ability to win and will or does not have the ability to win.

Response to (c): It is unclear what it means to have the requisite knowledge. For example, a novice at chess might have an understanding of what all the pieces can and cannot do, but does not know any strategy, thus while have the ability to play chess in some sense, but cannot compete or is not possible to compete against a veteran who know many strategies. So it does not make sense to say one has the requisite knowledge since it is too vague of a claim barring of course the random movements of a person with no chess experience at all which happen to win a high level chess game. Further illustration of this is the difference between educational levels. While a fifth grader might be able to read a book by Kant, in the sense the one can read words, a Kant scholar is considered to be more skilled at reading and understanding Kant than a fifth grader. Thus while it can be said of both that they can read Kant, it is obvious that the Kant scholar has a better understanding of the material and thus the fifth grader could not compete with the Kant scholar in a debate about interpret Kant's work.

The Twin Counter Example (2a): This is based on the Burdian's ass example. If OIC (Kant's Law) were true, moral dilemmas would demand that a person has no obligation to do neither. The Burdian ass example states that since a donkey has no particular reason to choose one pile of hay over the another equidistant and equal pile of hay they donkey starves because it choose neither. Jaquette's example is that of two equal twins who are trapped under a rock. Saving one twin would kill the other and given enough time both will die. The caretaker of both twins is obligated to protect the both of them. As stated earlier Jaquette offers formal symbolic proof of why OIC/KL is needed to maintain the consistently of the deontic logic proof. But the consequence of maintain the consistency is ridding the caretaker of the obligation to take care of

both twins[1]. I propose that since OIC/KL is undesirable (at least) since it would mean that no

action would be taken and both twins would die, because there is no obligation to save both

twins and there is no moral obligation to pick one particular twin over the other. Instead

contradiction within deontic logic or an inconsistency preventing further derivation would be

better than being free from obligations in all moral dilemmas.

Objections to (2a):

One problem with this view is it uses one person as a means to save another. This would violate

Kantian style ethics since people are not meant to be used as a means to an end but as an end in

and of themselves. So by saving one twin, one kills the other twin as a means to save the first

twin. Therefore this view does not convince the Kantian since if this view was universalized it

would be acceptable to kill one person to save another.

Response to Objections to (2a): The doctrine of double effect can be stated that while a person

can perform an action intentionally, the person can also do so without intending other

consequences of the action. For example, if a doctor is administering morphine to a patient and

the intent is to relieve pain, the side effects can be view as an unintended consequence of the

action. So while one twin dies they are not intended to be a means to an end and thus it is never

the intent to universalize killing one person to save another. Thus we can save twin 1 without

intending the consequences that happen to twin 2. One example of this can be seen in the

Boulder case from Ginet presented earlier. In this example there is a series of rollers hidden

underneath a large boulder which if pushed will activate the rollers such that the boulder moves

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[1] In the paper the proof describes this as two different obligations, derived from a conjunctive obligation. The first to save twin one and the second one to save twin two. This is broken apart and from both obligations it is shown that if one takes OIC/KL to be true one is not obligated to save twin one and not obligated to save twin two. This is then used to form the conjunctive non-obligation of saving the twins.

with minimal force. A person to push on the boulder with the intent to show he or she cannot move the boulder, yet when he or she pushes on the boulder it moves. So although the intent was to show he or she cannot move the boulder it moved, thus an unintended action can be done with the intent to do something else.

Death Row Inmate Counter Example (2b): A death row inmate is forced to choose his style of execution in a court of law in which the inmate is the only decider of the style of execution. The legal system is such that only the inmate can choose the style of expectation and that the inmate ought to pick a style. Since all of the options he has to choose from are undesirable (they cause his death) and he has no preference of the style of execution (from a list of non-painful methods). Thus since his choice of one means the other cannot be the case, use of OIC/KL means that logically the inmate has no obligation to pick any execution, thus defeating the purpose of a death row. Since the inmate has no obligation to pick one style over the other and never choses a method, thus OIC is undesirable since the death row inmate will not be executed though the inmate ought to be. To contrast this if the inmate was given the option of choosing between being hanged, drawn, and quartered or being given a lethal injection the inmate has an obligation to the later as it is the least painful method. This would be equivalent to the donkey in the Burdian's ass example having to travel one mile to a pile of small pile of hay versus circumnavigating the globe using only a canoe in order to receive the same pile of hay. Here the obvious choice is to pick the closest pile of hay, thus creating the obligation to pick one versus the other. However in the case where the inmate is given two completely pain free death penalty option, there is no obligation since both are equivalent, and the inmate would continue to deliberate between the two until he dies of natural causes in the court room.

Objections to (2b): This only shows an undesirable consequence of OIC and does not falsify it. Additionally it does not mean an option cannot be chosen, but rather than it is a non-rational choice to pick one other the other (such as one seems like a cooler way to be executed). Therefore it is possible to continue on with the execution so long as any method is chosen even if there is no obligation to pick a particular one.

Response to Objections to (2b): While one can chose a method via a non-rational means, there is no obligation in the first place, so no choice has any real motivation behind it, therefore it is still undesirable since there is not an obligation to pick any method at all. Therefore there is not a reason to even pick any method even if it is for a non-rational reason.

My purpose for this counter example is to give an account of a Burdian's ass example in which one does not have an incentive to just pick either choice. In the Burdian's ass picking either bale of hay would allow the donkey to live. So while there may not be a moral obligation to pick one, there would be a reason to pick one. This example however leaves two equally bad choices which one would not have an incentive to simply pick either choice. Thus it can be further illustrated why OIC/KL is undesirable.

The Contradicting Laws Counter example (3a): Imagine a law that is passed that claims a person is obligated to pay taxes for their phone bill, and another that later claims that it is impermissible for taxes to be collected on internet service. This first law being made many decades ago did not anticipate smartphones, thus a modern phone bill includes internet service. A person is obligated to pay taxes and not pay taxes. This is not possible, OIC is false.

Objections to (3a): This can be solved by stating that these must be billed separately, thus while a bill can be sent to pays taxes on the phone bill while not taxing the internet. Additionally it can

also not include any taxes for internet but include taxes on the phone portion of the bill, thus no violation.

Response: This is true but contradicting laws can still be setup, therefore a new counterexample that follows a similar format can exist.

The Contradicting Laws Counter example (3b): According to a transplant policy a liver recipient cannot drink any alcohol in order to stay any the organ transplant list. George, requires a transplant soon and will die without it. Due to ethylene glycol poisoning, George must be given alcohol by the hospital in order to live, but this will prevent him from staying on the transplant list. George, assuming he wants to live, is obligated to receive alcohol and not receive alcohol. So the doctor administering the treatment is obligated to perform a contradiction.

Objections to (3b): Different treatments might be possible. In real world cases it is possible to get around this by constructing policy which sidesteps this problem. One example would be that since living would be important for George it should be the case that he receives the alcohol treatment, but not be taken off the transplant list since it is be administered for medical reasons and not recreational reasons, thus George has an obligation to not have alcohol for recreational reasons and not all possible reasons.

Response to Objection (3b): Real world examples pose problems which we can chose one versus the other even if there is no moral obligation to pick one or the other since it is a contradiction. Because there is a contradiction in place we must stipulate new policy to get around the problem and it is possible that until that is done that it is possible to be obligated to perform a contradiction via OIC thus making it false.

The Contradicting Laws Counter example (3c): Imagine a government that holds the following stipulation: once a law is passed it can never be changed. The government passes a law that people have an obligation to own one and only one cat. Later as new officials are elected they encounter a massive bungling of administrative and legal work when trying to enact new laws about cat ownership. Since the new officials are tied up in this bungling they forget about the current law of owning one and only one cat, and pass a law requiring the ownership of at least two cats. Thus the citizens of this government are obligated to own both one and only one cat and are obligated to own at least two cats. Since these requirements cannot be fulfilled but its citizens are obligated to do so, the citizens are obligated to contradiction. Therefore OIC is false since the citizens are obligated to something they cannot do[23].

Objection to (3c): It is not within a person's practical, if not metaphysical, ability to make this meet this requirement since it requires a person to do two contradiction obligations they are actually not obligated to do either since it is not within the realm of their possible actions.

Response to objection to (3c): The relevant thing to meet this requirement is within their possibility, since it is possible to own a cat. Whether the person has the ability to perform a contradiction is irrelevant since he or she is already obligated to do so, so the ability to do something does not matter.

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[2] There is concern that there is only legal obligation and that only OIC as it pertains to legal matters be shown falsified, resulting in a OIC vs OIC* type problem. However this is not the case as laws and morals are intertwined, and with few exceptions legal obligations reflect moral obligations. I also hold the view that morals which are not represented into law are left out, because either there would be epistemic problem on deciding the matter in a court or it would be a morally bad decision to use the courts for trivial moral cases.

[3] Another concern is whether or not the second cat law is actually passed. If the law stating laws cannot be change once passed holds, there is a question of whether or not the second cat law can actually require one to own two or more cats as it would mean that there exist a law which changes the way the first cat law (mandating owning one and only one cat) must be viewed. I hold that both laws are passed and that the first law is not changed, but the system of law passing allows for cat law one and cat law two to be passed and exist simultaneously without breaking the law policy.

I have shown that OIC is false by contradiction in example **3c** by showing that if it were the case that one has an obligation to own one and only one cat and also own two and only two cats through a legal bungling. Also it has been shown that OIC is also undesirable since it would lead to being obligated to pick neither of two equivalent options. In certain scenarios such as the boulder case, picking neither option always results in a worse consequence than picking one over the other. Thus OIC, at the very least in the legal sense, is false and in all senses of OIC is undesirable. Additionally as shown in footnote 2, it can then be extended to show to OIC is false in general as well as the legal sense.

The general objections to this view would be that OIC has in fact not been proven false in the cat case, but instead only shows that since it is impossible to own both one and only one cat and two and only two cats, a person is not obligated to do so. However, in this case one has become legally obligated to the contradiction, and would then be responsible and face consequences of that legal contradiction. In this scenario one is obligated and responsible to perform a contradiction by law. Thus one is obligated to do something which is impossible.

A similar objection would then be that the cat law case is merely a metaphysical impossibility and could never be instantiated as opposed to something that is metaphysically possible, but impossible in a practical sense like the twins trapped under the boulder case. Another way to look at this objection is that if cases that are only metaphysically possible (i.e. a human flying without mechanical aid) are being rejected in OIC, since it would mean being obligated to something impossible in practical sense, then a case in which something is metaphysically impossible (owning one and two cats) should also be rejected as well since this cannot be possible in any sense, as this is not something that would be considered beyond the scope of OIC. The problem with this view is that it is too specific. In the flying case, it is

metaphysically possible to fly without mechanical aid, but not practically possible, whereas in the cat case it is both practically possible and metaphysically possible to own a cat. While the quantity of cat ownership as mandated by the scenario in example **3c** is impossible practically and metaphysically, cat ownership itself is not and thus the discussion regarding **3c** is still valid, since the core concept is not impossible. Thus the worry that something that is metaphysically impossible is being included into OIC is never encountered, as it is not a legal case of mandating people to draw four sided triangles, which is inherently impossible or a legal case mandating people fly without mechanical aid.

Section 3: Introduction to Kant's Law and Deontic Logics

From here, the implications of OIC being false on SDL need to be explored and it must also be shown that OIC is equivalent to KL, additionally implications on other deontic logics will be looked at. KL is typically formulated as either **OB** $P \rightarrow \Diamond P$ or **OB** $\underline{P} \rightarrow \Diamond P$, typically this would be translated into "if obligated to P then it must be possible to P"the difference between these two formulations will be shown shortly (McNamara 2010) (Gensler 2010). The standard formulation for OIC shown earlier is "if x ought to do A, then it must be possible for x to do A." It could be then translated into the **OB** $A_x \rightarrow \Diamond A_x$, which follows the same basic formulation of KL with the exception that OIC has been quantified.

Whether this translation is correct is debatable and is dependent on how OIC is worded by various authors, because in the case that OIC in the action theory texts refers to either a quantified version of KL as show above or possibly just means that it is then quantified general form which is the standard derivation of KL. OIC is often referred to as KL in other texts, and thus a formulation of OIC that is equivalent to KL is acceptable, thus I will consider the general

non-quantified version of OIC which is the same as KL. So the translation of OIC and KL can be considered to just be **OB**$P \rightarrow \Diamond P$ or **OB** $\underline{P} \rightarrow \Diamond P$. Given that OIC is shown false by the cat counter example earlier that would mean $\neg\Box$ (**OB**$P \rightarrow \Diamond P$) or $\neg\Box$(**OB** $\underline{P} \rightarrow \Diamond P$) which would be troubling for SDL as all arguments using KL.

Another concern is the particular semantics of KL where some texts have it written as **OB** $\underline{P} \rightarrow \Diamond P$ or write out KL as **OB**$\underline{P} \rightarrow \Diamond P$, where the $\underline{P}$ is distinct from P. Typically, $\underline{P}$ would be translated as the imperative "do P" so it would not be inconsistent to write out the well-formed-formula (WFF) ($\underline{P} \wedge \neg P$). This WFF would state, "do P but P is not being done". There are two ways I see the **OB**$P \rightarrow \Diamond P$ translation could be understood. It could be implied that the **OB**P means obligated to "do P" and does not mean obligated "P". Here the difference is that one gives the imperative command of being obligated to do an action "P" whereas the other just states there is an obligation "P". The issue with implying obligated to do P is that there is no way to distinguish "do P" from "P'ing" symbolically. So the imperative "do P" would fall under the same inference rules as "P'ing" would follow.

Whether or not the distinction between "do P" and "P'ing" matters rests on whether or not "do P" and "P'ing" are equivalent. If one claims these as equivalent it would meant that it is never the case that "not doing P" and P'ing" would ever exist as it would lead to contradiction ($P \wedge \neg P$).[4] If one commits to saying these are equivalent it could never be the case that one "ought to do P" and "not do P" meaning that obligations would always be fulfilled, assuming that

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[4] If these are taken to be equivalent, then they could not exist in normal logics, which is what SDL and most of its derivatives are. This would not be true in paraconsistent deontic logics, where the law of non-contradiction is rejected and ($P \wedge \neg P$) is possible. This is only if "do P" and "P'ing" are equivalent. i.e. "do P" is translated as (P) and not ($\underline{P}$).

obligation is taken to mean necessity[5]. This seems prima facie implausible as it would mean that all all-things-considered obligations would be fulfilled under the "do P" is equivalent to "*P*'ing" translation. It would potentially mean an action is equivalent to a state of affairs. For example, if *P* is a stand-in for "the sunny is shining", then the imperative would be the non-sense phrase "do the sun is shining". If the action "do *P*" is translated as *P* like in **OB***P*→◊*P*, then non-sense phrase would be included as a form of obligation. For instance if one is obligated to do the sun is shining entails it is possible the sun is shining, leading to bad translation. Another example that causes ambiguous translations would be, **(T1)** if one is obligated to riding a bike entails it is possible to ride a bike, giving a non-imperative obligation as the state of affairs of riding a bike is not the same as the imperative go ride a bike or do ride a bike. If the imperative is implied like it could be in **OB***P*→◊*P* form of KL, it could be translated as **(T2)** if one is obligated to go ride a bike entails it is possible to ride a bike. While seemingly similar translations, they are not identical since the first, there is no imperative being implied, while in the second there is. If instead KL is used only in the imperative form **OB***P̲*→◊*P*, then the above cases could then symbolized as:

(T1) OB*P*→◊*P* (non-imperative form)

(T2) OB*P̲*→◊*P* (imperative form).

Therefore, the non-imperative KL is not desirable for use in SDL as it can lead to ambiguous translations. Using the imperative translation as the only correct form of KL allows this ambiguous translation to be cleared up. To clarify, **(T1)** is still a valid translation but is not

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[5] I do not see it intuitive as how an action that is an obligation would not be a necessary obligation, as it could be rewritten a permissible or omissible action if it were not a necessary obligation. This calls in to question whether or not an "unnecessary obligation" could be called an obligation at all. I take it that all obligations are necessary.

KL. By making **(T2)** KL, one can use **(T1)** as another translation which does not specify the imperative form of *P*.

Additionally there is the problem in the non-imperative form of KL that one is obligated to a state of affairs instead an action. To clarify, I do not mean is obligated to bring about a state of affairs which I consider to be done through an action, but to the state of affairs itself. If it were the case that it was an obligation to bring about a state of affairs **T1** and **T2** would be equivalent or almost equivalent. In the sun is shining example one would then be obligated to the state of affairs that the sun is shining. Another example would be to brake a car. Saying one is obligated to the state of affairs of braking as opposed to obligated to action brake the car is also non-sense, as it would mean the state of affairs of braking of the car is obligated, but not necessarily the action of braking the car. Thus it could be the case one is obligated to the state of affairs, but not the action if the non-imperative KL is used instead of the imperative KL, leading to further ambiguity. Therefore discussion regarding KL will now be limited only to the imperative form of KL written as **OB**$\underline{P}$→◊*P* as it allows for **(T1)** and **(T2)** to be distinguished from each other, where **(T2)** is translation of KL using the bicycle example and **(T1)** is not a form of KL, and in general seems to be less ambiguous than a non-imperative formulation.

Since there is a counter example to OIC, and if OIC and KL are equivalent, KL would not be a deductive inference, as it would not necessarily be the case that KL is true in all circumstances. What I mean is that KL in order to be used deductively it must be the case □(**OB**-$\underline{P}$→◊*P*) is true, and ¬□ (**OB**$\underline{P}$→◊*P*) is false. Since for the cat case it must be the case that □ (**OB**-$\underline{P}$→◊*P*) is false as it is a counter example, it then entails that at least ¬□ (**OB**$\underline{P}$→◊*P*) is true in one circumstance. Therefore KL cannot be used deductively, as it is not always true. So while

this counterexample is not a knockdown argument of KL, it does not have to be given that in deductive logic systems the form of the argument is what makes it valid or not. If in some cases KL cannot be upheld, then it is not a valid inference rule, as the form of KL alone is not enough to guarantee the correct deduction of an argument.

The problem lies with whether or not the SDL definition of KL is the same as the OIC definition of KL. Specifically whether or not **OB** $\underline{P} \rightarrow \Diamond P$ means whether something is merely logically or metaphysically possible or whether it must take a stronger approach to being practically possible as well. While it is agreed upon that the **OB** part of KL is to mean the all-things-considered obligation and not a weaker pro-tanto and contingent obligations (the same as how obligation is defined in OIC), it is not as clear how $\Diamond$ is translated specifically. If $\Diamond$ is to allow the weaker logical and metaphysical claim, then it may not be the case that OIC and KL are equivalent, as OIC maintains that the $\Diamond$ must mean the practical sense of possibility for it to be of any use. Had OIC not used $\Diamond$ in the practical sense, but rather the metaphysical sense it would mean one would be obligated to flying without mechanical aid as stated earlier. This would make for a poor and unconvincing form of OIC at least from the perspective of action theory. If KL uses $\Diamond$ in the same manner as OIC, then KL falls flat as a valid deontic inference, because it becomes susceptible to the cat example used to show why OIC is false.

Section 4: Possibility, Meinong, and the Impact on Standard Deontic Logics

I will now explore how $\Diamond$ in KL is used for SDL, and whether it can be considered equivalent to the sense of possibility as used in OIC. There exists many accounts of the word

'possible', but discussion of what sense of ◊ is being used in will be limited to claims of practical possibility, nomological possibility, metaphysical possibility, and logical possibility. I take that the weaker senses of possibility are the ones that KL probably takes, such as the metaphysical and logical sense of possibility[6]. I will show why holding a weaker claim of possibility for KL is self-defeating and why it must instead try to hold a stronger sense of possible such as the practical sense.

A practical action is when that action can be performed in the real world given the current state of affairs. This is the kind of possibility OIC takes. For example, it is not a practical possibility for me to lift 300 pounds, because given the current state of affairs I am not strong enough to do so. By current state of affairs I mean the actions I have taken up until now have not allowed me to be strong enough to lift 300 pounds. Specifically this sense of possibility is meant to only consider what actions can be taken given the current state of affairs and not a different state of affairs given the same laws of nature. So cases such as if "I were stronger it is possible for me to lift 300 pounds" would not fall under practical possibility. Instead these cases would fall under nomological possibility, a weaker form of possibility. I take this form to mean that an action can be instantiated holding fixed the laws of nature. So holding the laws of nature as they are now, action *P* can be performed. So it would be nomologically possible for me to lift 300 pounds as it can be imagined that I am stronger than I actually am, but it is still within the boundaries of the fixed laws of nature.

Metaphysically possible is meant to take up worlds in which necessary truths must exist, such as water being H_2O as opposed to another type of compound. This sense is only meant to

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[6] I take that the most probable sense of 'possibility' KL uses is logical possibility as the form itself is enough to guarantee an arguments validity which is acceptable for various logic systems. The metaphysical sense could also be used if one wants to have a stronger claim that at least KL must apply to necessary truths, but I do not see this as a necessary version of possible for KL or at least not the most commonly used version.

hold that the without water being H_2O, the properties which are associated with water do not exist. So in order for what we call water to exist with the properties we associate with it, it must be a necessary truth in all metaphysical worlds that H_2O is water and not something else. Another example would be that it triangles have three sides, which is true by the definition. Logically possible is meant to be the weaker claim that something is logically consistent. I take this form of possibility to simply state that so long as something is not a contradiction it is possible. So while a four-sided triangle would not fit under this definition of possible (with the exception of 'triangle' being defined in a possible world as a four sided figure), it is certainly possible to imagine a possible world where one can fly without mechanical aid and thus would fit under logically or metaphysically possible. Thus this definition of possible would mean that something is possible if it is consistent, but not necessarily able to be instantiated in a particular world but rather any possible world. So, necessary truths in the metaphysical sense of possibly do not need to hold, as it is logically consistent to claim H_2O is water, or that $C_7H_8N_3O_6$ (trinitrotoluene or TNT) is water (not both H_2O and $C_7H_8N_3O_6$) but not metaphysically possible if H_2O's being water is considered to be a necessary truth.

If we take KL (not OIC) to mean that ◊ is merely a logical or metaphysical possibility, and not a practical one, then KL becomes a very weak claim serving as an operator whose function can require obligations which may not be possible to perform. This would mean that **OB**_P_→◊_P_ could have the following translation: If obligated to go fly without mechanical aid, then it is possible to fly without mechanical aid. Since ◊ is being taken as the logical or metaphysical claim, then flying without mechanical aid is a possibility, though one that cannot be instantiated in the real world. This would mean that one could actually be obligated to fly without mechanical aid because it would be possible (metaphysically or logically) to do so. To

use Meinongian terminology, if KL used the metaphysical or logical sense of possibility, it would be the case that one is obligated to do something which may merely subsists in form of pseudo-existence and something within the set of objects without being e.g. golden mountain cases (Marek 2013). This would be absurd; meaning the only motivation to keep KL in the logical or metaphysical sense would be to save an inference rule for use in deontic logics. But as Jaquette has shown earlier and as I have shown through my own examples, holding on to KL is undesirable at best and at worst leads to glaring contradictions. Thus even if KL is meant only to mean the metaphysical or logical form of possibility, it should be discarded out of absurdity as it would be self-defeating.

To further illustrate this, if one was obligated to an action which only subsist but does not actually exist, and this obligation exists in the actual world, then **OB**$\underline{P}{\rightarrow}\Diamond P$ would require that one is obligated to something one cannot practically do. Thus it would mean **OB**$\underline{P}{\rightarrow}\neg\Diamond P$ if the obligation was specifically for a subsisting action, that does not actually exist. When one is obligated to actions which merely subsist KL does not imply itself. I will denote P subsists with P, where is considered the subsistence qualifier. P could be understood as there subsists a P, which is not instantiated practical possible worlds, but subsists in nomological, logical, and metaphysical possible worlds. If P is known to subsist, then the case can be formalized with the following translation given that $\Diamond$ is used to mean practical possibility:

$$((\mathbf{OB}\underline{P}{\rightarrow}\Diamond P)\wedge \quad P)){\rightarrow}(\mathbf{OB}\underline{P}{\rightarrow}\neg\Diamond P)$$

At the very best it forms $\neg\Box(\mathbf{OB}\underline{P}{\rightarrow}\Diamond P)$ if the obligation does exist, but it was not specified whether or not the action was a subsisting action or an existing action. This case can be formalized by given that $\Diamond$ is used to mean practical possibility:

$$((\mathbf{OB}\underline{P}→◊P)∧(\quad P∨∃P))→(¬\square\,(\mathbf{OB}\underline{P}→◊P))$$

In both cases, where an obligation exists but it is uncertain whether *P* exists or subsists, KL fails to provide a way to derive KL, if one assumes a metaphysical, nomological, or logical sense of possibility. One could imagine then, ◊ could be replaced with ∃ if the action is known to exist, □ if the action is known to subsist, ¬∃ if an action does not exist in practical worlds, or with ¬□ which I will use to mean an action does not exist in any possible world. Specifically (¬∃∧□) could mean that the action subsists in logical, nomological, and metaphysical worlds while ¬∃ could be ambiguous as to whether or not the action does or does not subsist. Thus I will take □ and ¬∃ to be equivalent so long as ¬□ means that something is not possible in any possible world, however, I will use □ to make clear that I do not mean ¬∃ in the traditional does not exist sense used in many standard logics. So there can now be many ways to translate KL depending on which sense of 'possible' ◊ is meant to take.

For practical possibility KL translates to $((∃\mathbf{OB}\underline{P})→∃P)$ meaning there is an existing obligation and an existing practical action. There is an obligation which can be instantiated in the actual world given the current state of affairs. For clarity, what I mean by an existing practical action, is one in which a person has the practical possibility to do. One may object that this is not an existing action. They may claim it is rather a subsisting action as it is not actually being done, but rather it is an action that is merely practically possible. For example, one may say that it is practically possible to wave my arms around, but since I am not doing this, the action does not actually exist but rather subsists. In Meinongian terms, the state of affairs of something is an ideal subsisting object, such as the state of affairs that the glass of water is in front of me. This is opposed to the glass of water that is actually across the room, which is an existing object. So the

state of affairs that the glass is in front of me is a subsisting object and it is practically possible that I can move it in front of me. One may object that practical existing actions are merely a state of affairs that can be done given the current conditions, rather than something with the quality of existence.

However, there is an asymmetry as to how objects exist and how actions exist. On my view, all that is required for an action to exist is for it to be instantiatable in practical worlds. For objects all that is required to exist is to have being and to be instantiated, such as tables. Tables in this example have being in the Meinongian sense as well are instantiated in practical worlds thus exist. However actions are not subject under this as actions would lose the quality of being instantiated as soon as an action is completed. The objection raised must then take the claim that as soon as the action is completed it subsists again. The problem with this view is that an action which exists at some time would be responsible for consequences or states of affairs that subsist. So my turning the light on, gives rise to the state of affairs of the lights being on. This is to say when the action exists, on the objections view, it would cause a subsisting object and an existing object. By turning the light on I would have caused both the subsisting state of affairs of the lights being on, and caused the light which is now filling the room to exist. Thus the existing action causes both an existing consequence and a subsisting consequence, and then returns to being a subsisting action. Moreover it would mean after the action is complete, the now subsisting action is responsible for an existing object and a subsisting object. This over-determines the cause of the existing object and the subsisting object. Since the action now has a duality between subsisting and existing and the fate of the consequences are over-determined, the objection cannot hold outside of a deterministic world. This is to say that in order for the duality to collapse and not over-determine the cause of the consequences of an action, one must

determine the metaphysical state of the action, and thus it is required to say whomever performs this action must perform or not perform the action. Therefore, since the action must be determined in order to escape the duality problem, this objection is doomed to claim a subsisting action can be responsible for existing and subsisting objects or to fall under a deterministic argument. Because subsisting actions do not merely encompass actions which had existed, but rather actions that have already existed and actions which have not yet been performed, it must then claim that actions which have not yet been performed can be causes for consequences. This would be absurd, as it would allow for actions which have not even been performed to cause consequences.[7]. Therefore, this objection must hold that the action must have existed, in order to avoid absurdity, which places it as a form of determinism. As shown earlier, rejection of OIC is not subject to deterministic arguments meaning this objection does not actually cause any worry for my view. Instead by viewing actions as existing when they are potential actions in the practical world and by claiming that all of its consequences exist, and that it is not responsible for subsisting consequences we avoid having to use a deterministic world to make claims about an action's metaphysical state.

For what I am calling a practical existing action, I am claiming that the action is within the realm of possible actions given the current state of affairs that actually are. So for an existing practical action one must only consider the case that the glass of water which is actually across the room and what can is practically possible. So one of the practical existing actions I have is moving the glass of water in front of me. The practical existing action exists in the sense that it

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[7] I do not believe that the exact definition of causation is of importance to my view. If one takes a skeptical view that one thing does not cause another then the objection still fails. While the skeptical view would also claim that my view fails as it means existing actions cause existing consequences, it would seem that any all obligations would also fail, as if I am obligated to do something but nothing I can do would cause it if causation did not exist, then I am obligated to do something I cannot do. This would bring back to the counter examples I have provided and actually support my view that OIC is false.

can be done, given the current state of affairs of all other past events which have happened up until this point. This is in contrast as to how objects are thought of to exist which usually would be considered as examples of 'the glass of water actually in front of me' as opposed to the case of 'the potential glass of water in front of me that is actually across the room'. A subsisting action however would be something that could only be done in non-practical worlds. For example in the world in which the glass of water is front of me, it is a subsisting action of mine that I can move the glass in front of me. By this I mean that the action does not actually exists given the current state of affairs because if the glass is already in front of me I cannot do the action of moving it in front of me. Here the action would fall under ideal subsistence as the action has being, but does not actually exist, as the current state of affairs does not allow it to exist. It is an action that could be instantiated had the glass been somewhere else. There is a distinction that can be broken into two parts, the ideal subsisting action and the non-ideal subsisting action. The ideal action can be described as the glass of water case above. An example of non-ideal is jumping 30 feet in the air, which unless the laws of gravity change then it is not even instantiatable and would merely subsist; that is to say it is a non-ideal subsisting action which is in a state of non-being. Thus these non-ideal actions are ones that would not even be instantiatable in nomological worlds, such as flying without mechanical aid.

For the metaphysical, nomological, and logical forms of ◊, KL can translate to ((∃**OB**_P_)→□_P_), meaning there exists an obligation for a subsisting action, if it is known that the action only subsists and does not actually exist. The reason this is true for these forms of possibility is because if it instead the action existed then it would collapse into the practical form of KL. If the obligation subsisted then there would be no real obligation to do the existing action. Rather it may be permissible to do the action, but this it is not clear that necessarily be

permissible. Thus translated □**OB**_P_, is equivalent to ⌐∃**OB**_P_, but does not exclude **PE**_P_ as it

does not mean action _P_ ought not to be done just that one has no existing obligation to action _P_.

By extension ⌐□**OB**_P_ would mean that in no possible worlds the obligation exists or the

obligation does not even subsist, which does not exclude **PE**_P_ because while the obligation

cannot even subsist does not mean the action is impermissible but rather that there cannot be a

reason in any possible world to hold a certain action obligatory.

One possible objection to this view is that action is merely an obligation in that particular

possible world where it could be theoretically instantiated. So one does not have an existing

obligation for subsisting actions, but rather one has a subsisting obligation for subsisting actions.

Thus if one was obligated to fly without mechanical aid, one only has that obligation in worlds in

which it is metaphysically/logically possible to fly without mechanical aid. Specifically, the

objection is that I have shown only that ((**OB**_P_→◊_P_)∧(_P_))→⌐(**OB**_p_→◊_P_∧(∃_P_)), but rather that

it is the case that for subsisting actions one derives ((**OB**_p_→◊_P_)∧(_P_))→(□(**OB**_P_→◊_P_)).

Specifically it would mean that instead of an existing obligation only has an obligation that

subsists in metaphysical, nomological and logical possible worlds as opposed to nomological or

practical worlds. This translation would hold that in metaphysically possible and logically

possible worlds that one does not have an existing obligation. Thus the KL translation means

((□**OB**_P_)→□_P_)) meaning that there merely subsists an obligation do a subsisting action. It is

unclear whether or not this is the same as □((∃**OB**_P_)→∃_P_)), which appears to be the case as the

entire translation of the practically possible KL has the condition of subsisting, instead of

existing collapsing it back into a subsisting obligation and subsisting action. Therefore

((□**OB**_P_)→□_P_)) = □((∃**OB**_P_)→∃_P_)). The problem with this objection to my view that one has

would have an existing obligation, as opposed to a subsisting one, is that instead of giving a

defense of KL it instead gives a defense of the claim: $\Diamond(\mathbf{OB}\underline{P}\rightarrow\Diamond P)$, as it would only mean that KL is possible in worlds which the particular obligated action is possible. Thus one cannot show a tautological proof of KL in metaphysical and logical worlds.

Thus it would reduce down to the claim that KL must take the practical sense of possible and not the metaphysical, logical, or nomological sense of possibility, as KL fails on the accounts of metaphysical and logical sense. This is because it would only claim one has an obligation to do an action if it is instansiatable in a particular world. Therefore if one takes the stance that KL is different from OIC based upon the claim that the sense of possibility is different between KL and OIC one would self-defeat because a tautology would not be implied by using KL, but rather an inference stating KL may or may not be possible. Instead one must make the claim that KL takes the practical sense of possibility or the nomological if one wants to hold that KL has any truth, meaning OIC and KL are equivalent. This is of course troublesome for KL as it becomes susceptible to the counter-examples I have provided.

Section 5: Impact on the Andersonian-Kangerian Reduction

The AKR derivation of SDL based on classical modal propositional logics and posits that all normative demands are met:

$\mathrm{K}d$:   A1: All Tautologies   (TAUT)

A2: $\Box(p \rightarrow q) \rightarrow (\Box p \rightarrow \Box q)$ (K)

A3: $\Diamond d$ $(\Diamond d)$

R1: If $\vdash p$ and $\vdash p \rightarrow q$ then $\vdash q$ (MP)

R2: If $\vdash p$ then $\vdash \Box p$ (NEC)

where *d* stands for normative demands(McNamara 2010). A3 is taken to be it is possible to meet

the normative demands. The AKR can be understood as a different between classical and

relevant SDL formulation. The classical formulation would give that **OB**P=d$\Rightarrow$$P$, where $\Rightarrow$ is

meant to mean strict implication and $\rightarrow$ is meant to take up material implication, thus

OBP=$\square$(d$\rightarrow$$P$) (Lokhorst 2006). For AKR $\Rightarrow$ is meant to take up relevant implication, which is

supposed to avoid problems of SDL that use material implication.[8] Specifically there is the

problem of antecedents having no real bearing on the consequence, such as cases in modus

ponens would be if-then statements which claim if it is raining, then the moon is made of cheese.

This if-then statement has antecedents and consequents which are not relevant to each other, thus

AKR takes up $\Rightarrow$ to mean that the antecedent and the consequent are relevant to each other to

avoid the non-sense modus ponens case. Thus there can be more extensions of KL, depending on

what $\Rightarrow$ is taken to mean. For strict implication version of KL, one possible translation is

(**OB**$\underline{p}$$\rightarrow$$\lozenge$$P$)=($\square$(d$\rightarrow$$\underline{P}$)$\rightarrow$$\lozenge$$P$)). So the strict implication form of yields " 'if one ought to do P

then is must be possible to P' is equal to 'if the normative demand entails to do action P, then it

must be possible to do action P' ". For the relevant implication case **OB**p=(d$\Rightarrow$P), where $\Rightarrow$

means that d and P are relevantly connected. (**OB**$\underline{P}$$\rightarrow$$\lozenge$$P$)=((d$\Rightarrow$$\underline{P}$)$\rightarrow$$\lozenge$$P$). This translation can be

thought of as " 'if one ought to do P then is must be possible to P', is equal to 'the normative

demand relevantly implies to do P, then it is possible to P' ". Again these translations run into the

'possible' problem like SDL does as the strict implication form and the relevant implication form

of AKR do not distinguish what is meant by possible. With the strict implication, if we substitute

in the subsistence logic operators we get (**OB**$\underline{P}$$\rightarrow$$\square$$P$)=($\square$(d$\rightarrow$$\underline{P}$)$\rightarrow$$\square$$P$) or

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[8] Depending on the formulation $\Rightarrow$ can mean strict implication and $\rightarrow$ can mean relevant implication as there are various reductions and supplemental logics such as logic NR, and logic S. I will only discuss the AKR in which $\Rightarrow$ is defined as relevant implication.

(**OB**$\underline{P}$→∃P)=($\Box$(d→$\underline{P}$)→∃P), meaning that if the normative demand entails to do P, then there exists a P or there subsists a P. So KL runs into the problem of ◊ again and can require than one does subsisting actions. With relevant implication we would get (**OB**$\underline{P}$→$\Box P$)=((d⇒$\underline{P}$)→$\Box P$) or (**OB**$\underline{P}$→∃P)=((d⇒$\underline{P}$)→∃P).[9] Thus KL in the AKR would fall under the issues where either it taking up a non-practical form of possible leads to absurdity or it takes up the practical form of KL and runs into the problem my counter examples show. This of course means it runs into absurdity again given the cat law counter example, or at least shown to be undesirable.

I must draw conclusion that for both SDL and its AKR that any form of KL is futile, and that any form of KL under non- paraconsistent deontic logics can is futile as they all run into the possible problem and would break law of non-contradiction. This is because as shown earlier, KL does not derive back to KL when 'possible' is further broken down into the non-practical senses of possible. Also since the practical from has been shown false via counter-example OIC can be shown false and by extension the practical form of KL is shown to be false as they are equivalent.

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[9] There is a bit of a puzzle as to whether or not ⇒ in relevant logics can show that relevant implication of (**OB**$\underline{P}$→◊P)=((d⇒$\underline{P}$)→◊P) actually means that there can be only one translation (**OB**$\underline{P}$→∃P)=((d⇒$\underline{P}$)→∃P). My understanding is that it will create the two translations (**OB**$\underline{P}$→∃P)=((d⇒$\underline{P}$)→∃P) and (**OB**$\underline{P}$→$\Box P$)=((d⇒$\underline{P}$)→$\Box P$) and that the ◊ in KL is not under relevant implication. So the replacement of ◊ with my subsistence logics, while clarifying the different forms of possibility, does not mean the relevant operator mean to obligation is relevant to the action. Since there is no obligation operator after the → operator in KL, it does not translate the same way as **OB**$\underline{P}$ does into to d⇒$\underline{P}$ as a way to force relevance in an if-then statement. So even in a relevant logic system there appears to be a problem centered around the fact that one has a relevant implication operator that is part of a material implication operator. This would be anything with the form (d⇒A)→B. The relevant implication antecedent can be substituted in for Q, resulting in a normal propositional logic Q→B, allowing for a non-relevant antecedent to take the place of Q. Even though Q itself contains a relevant implication operator, it does not mean that Q is relevant to B.

Section 6: Moving Beyond Ought Implies Can and Kant's Law

For future ethics on moral dilemma cases where OIC or KL would demand that one has no obligation to pick a choice, one can see that these theories are incomplete and they offer a truly unintuitive option of not picking any choice. More importantly these theories are incomplete due to KL's self-defeating issues in non-practical worlds; OIC and practical KL's issues in the face of absurdity such as the cat law case. What can be definitively said then about obligations is they cannot be constrained by ability. While it does not mean that obligations cannot be restricted in some sense, it must be something other than ability. If not restricted in some other manner, while still avoiding the no obligations problem in moral dilemmas, it would allow for what Streumer calls in his paper "crazy reasons imply can" to be legitimate concern (Streumer 2007). One such case Streumer brings out is that given how bad the crusades were a modern person has reasons to go back in time and prevent them.

> Crusades Case. Given how bad the crusades, slavery, and world war 2 were, one has reason to go back in time to stop these.

> Airplane Case. Given how bad a particular airplane crash is due to engine failure, a person has reason to jump 30,000 feet in the air the fix the engine and prevent it.

> Medicine Case. A person of only moderate intelligence has reason to spend his or her life trying to develop medicine to prevent diseases even though it is most likely the case that all of the efforts would be futile.

Thus either one can hold that crazy reasons are reason to act or that there are other restrictions. If I do not hold that there must be restrictions on obligation that reduce to something other than ability, then either I must hold that one can be obligated to crazy obligations such as

the preventing the crusades case or that OIC is not false. So the core problem of my view is that, if ability is the only thing obligation can be restricted with, then one can be obligated to go prevent to crusades, given that it is the good thing to do.

How must obligations be restricted then, if not on the basis of ability to perform an action? I hold that obligations arise from contractual agreement, and that ability is not actually restricting the obligations but rather may be reasons for restricting how contractual agreements between people are set up. Thus instead of universally saying that ability always restricts obligation, it then says that contractual agreement restricts it. What this means is that one can accept or reject this contract on some other basis than ability to fulfill the obligation, and moreover obligation may restrict ability rather than ability restricting obligation. This can be seen in two ways, either legally or morally given by the following cases:

1. The Legal Case. A person who is under the drinking age in a particular region has entered the contractual agreement to not purchase and drink alcohol in that region by virtue of entering that region. That contract is an obligation on that person to not purchase and drink alcohol, which restricts the ability to purchase and drink alcohol. Therefore if one is underage he or she is restricted from legally purchasing and drink alcohol, and the obligation restricts what one has the ability to do legally.

2. The Moral Case. Given the assumption that there a moral law that one should not murder (unjustifiable killing) and that this law applies to all people, by virtue of being rational beings. Thus one has entered a contractual agreement to not murder others, and if one does do this he or she has violated the contract. By this I mean that one cannot murder in a moral way, rather it would be completely immoral to do so.

When contractual agreement is conducted limitations are placed upon what is or is not permissible to do and thus one obliges oneself to a series of actions and omissions. It is not ability which concerns whether or not one obliges oneself to a series of actions and omissions, but rather freewill which allows us to consciously make decisions on how to restrict our own actions in accord with others and in accord with what is good. If one then enters into a contractual agreement in which one has obligated oneself to do something which one does not have the ability to do, then that person is still obligated to do the action or omit the action which is demanded by the contractual agreement. I also would claim that although OIC is false that it may still be the case that obligating oneself to impossible actions is a morally bad action, and thus one should not agree to contracts in which one takes up impossible to fulfill obligations. Additionally one should also not put oneself into a position where one cannot fulfill the agreements one has already committed to. For example agreeing to meet someone at 5:00pm, but instead seeing a movie at 3:00pm knowing that the movie ends at 4:55pm, and knowing that five minutes is not enough time to get across town. This is a situation where one has put oneself into a situation where he or she cannot complete the obligation. While there may now exist some conditional obligations given the situation one has put oneself into, these do not replace or override the original obligation, but rather is a means to make the best out of a situation where obligations cannot be fulfilled. Therefore a person can agree to contracts that contain impossible obligations but it would be the wrong thing to do as the conditional obligations would be necessary but not sufficient to fulfill the original obligation. That is the conditional obligations can never be sufficient, but are necessary to do what is good.

So how does one escape the problem of needing contractual agreement for everything including omitting to murder? I hold that moral realism is true, and that the set of moral laws

applies universally, thus by virtue of being a rational being one has entered a contractual

agreement with other rational beings to uphold these, such as obligated to omitting to murder.

While clearly these contractually agreements are not upheld by all rational beings, it is a problem

with the individual who breaks the contractual agreement and not the agreement itself. As to

why I have granted Streumer that the reason implies can or there are other restrictions on

obligation outlined is his paper because I want to be able to avoid a relativism within certain

cases such as pyromaniac cases, evil neuroscientist cases, Frankfurt style cases, and amoralist

cases. Specifically I want to be able to hold that while there may be reasons such as compulsion,

which a specific person may have to act, but is blameworthy on the account of breaking

contractual agreements.

1. The Pyromaniac Case. Imagine a person who has a case of pyromania so severe that it
   is no longer within their ability to control whether or not he or she sets buildings on
   fire. Additionally every time this pyromaniac does set a building on fire it is for the
   reason to satisfy his or her compulsion to do so. This pyromaniac lives within a
   community where this is unacceptable and by virtue of living in this community this
   person has agreed to the contract restricting one's ability to light buildings on fire
   such that when one does light buildings on fire it is illegal. When the pyromaniac
   lights the building on fire, the pyromaniac is now blameworthy according to the
   contractual agreement and thus is susceptible to whatever punishment is determined
   by the community's legal system.

2. The Evil Neuroscientist Case. Imagine an evil neuroscientist who implants a nearly
   inconceivably complex series of computer chips into a person such that it grants
   complete control over his or her right arm. Let us now say that person is in a

contractual agreement to not murder anyone in a particular town. While in this town the evil neuroscientist controls the right arm to load a gun and fire it at someone killing them. Although under contractual agreement to not kill anyone, in this case the victim of the computer chip implant is not susceptible to punishments of breaking the contract nor is blameworthy.

3. The Frankfurt Style Case(Frankfurt 1969). Imagine a person who is about to commit suicide by jumping off of a tall building, and that this person, by virtue of being a rational being has entered into a contractual agreement where rational beings ought to preserve their own life out of obligation to themselves and the community they exist in. While this person is planning to jump off, had this person not jumped it would be the case that he would step onto incredibly complex system of hidden levers and counter weights connected to a trap door on top of the building, which would be set off, launching him off the building.

    a. Scenario A. The person decides to jump off of the building, thus breaking the obligation set by the contractual agreement and is blameworthy.

    b. Scenario B. The person decides not to jump off the building, and does not violate the contract through his or her own volition but is the victim of the engineering ingenuity that is the trap door, launching this person to his or her death. Here the contract is not broken and is not blameworthy[10].

4. The Amoralist Case. Imagine a person who holds an unwavering belief in amoralism, where he or she only does what is best for him or her. While the amoralist may have

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[10] Franfurt Cases are controversial at best, and I regard it not as a defense of a compatibilist view, but rather that the principle of alternative possibilities is still upheld and that the Franfurt case yields determinism. While the case is built such that it appears that one has free will to decide what actions a person takes, the outcome is the same thus determined outcome with free will. I do not see this as a form of free will, rather it is a form of determinism.

reason to act it is only out of self-interest and thus disregards any contractual

agreements which do not offer any benefit to him or her. Therefore the amoralist has

reasons to break any contract he or she encounters that he or she believes will not

give him or her any benefit. While the amoralist has reasons to break the contracts, he

or she is still blameworthy and susceptible to punishments which are outlined by the

contractual agreements.

The main difference between case 2 and case 3b and case 1, case 3a, and case 4 is agency. In

case 2 and case 3b the agent is not the victim of the implant but rather the evil neuroscientist, or

as in case 3b the victim of the trap door. Whereas the amoralist case, the pyromaniac case, case

3a, the agent is the one breaking the contract rather than behaving as a tool for someone else to

break a contract as in the evil neuroscientist case.

While it might be a worry for some that a bad contract is merely one which cannot be

fulfilled and thus is really fancier label for restricting via ability. I anticipate the utilitarian saying

something along the lines of fulfilling obligations leads to satisfaction for some, thus if the

obligation results in the best option according the greatest happiness principle, then one should

fulfill the obligation. Additionally, if obligations have a component of satisfaction to them and

they produce good consequences, but not fulfilling them leaves one without this happiness or

satisfaction, then the one should not take up impossible obligations as they would be bad

according to the greatest happiness principle. The issue with this objection is that since OIC is

false utilitarianism is self-defeating given that obligation fulfillment gives satisfaction. Because

the lack of fulfilling obligations is bad according to greatest happiness principle, and because

OIC is false one can be obligated to something one cannot fulfill and thus given crazy reasons

cases one becomes a morally bad person by virtue of not doing the impossible. Another worry is

that my view might turn too many things into moral matters. Contractual agreements may turn any agreement between people into a moral matter as it becomes a matter of obligation. I agree, that this is a worry for my view, but a trivial one as I take it that entering into a contract aand being under obligation a moral matter. It might be that there moral contracts which do not have the magnitude of others such as entering an agreement to meet a person compared to the agreement of not murdering people. Therefore I have given a cursory groundwork as to how one can restrict obligation by another means other than ability. While the downside is that one can be obligated to impossible obligations, this is by mere consequence that one agrees to this. Obviously this is not a complete detailing of how to formulate these contractual agreements or what makes a good versus a bad contract, but nevertheless offers direction of where to go given that ability is not the only way to restrict obligation and that ought does not imply can.

Appendix of Logic Symbols Used:

◊ Used to mean possible in the standard modal sense

⇒ Depending on the type of logic system. For SDL used to mean strict implication and for AKR used to mean relevant implication

→ Used to mean material implication

∃ Used to mean the existential quantifier, "There exists an X"

□ Used to mean the subsistence quantifier "The subsists an X" (Symbol found as Coptic Capital Letter Hori)

⌐∃ Used to mean does not exist, as in possible objects that can exist. Equivalent to □.

⌐□ Used to mean does not subsist, as in impossible objects.

□ Used to mean necessity in the standard modal sense

⌐ Used to mean negation

∧ Used to mean conjunction

∨ Used to mean disjunction

P Used to mean the imperative "do P"

d Used to mean normative demands

⊢ Used to mean "Therefore"

= Used to mean equal

OB Used to mean obligation

PE Used to mean permissible

Appendix of Abbreviations Used:

OIC -Ought implies can

OIC*- Graham's ought not implies can not

KL- Kant's Law

SDL- Standard Deontic Logic

AKR- Andersonian-Kangerian Reduction

TAUT- Tautology

NEC- Necessity

MP- Modus Ponens

WFF-Well Formed Formula

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