WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Uplifting the Aporia in Refuting a Destructive Dilemma by Rebuttal or Counter Dilemma.

Tanyi Pamela Nugha, Ezekiel Kikoh, Bakoma Terrence Maley

Doctor- University of Bamenda, Bamenda, Cameroon

A B S T R A C T

Purpose: This article evaluates the refutation of a destructive dilemma by counter dilemma, it identifies a challenge in the process, traces the cause, then uplifts the impasse. By this solution, the argument remains formally and materially valid.

Methodology: With the help of the diagnostic and innovative approach, the paper, the paper identifies the fallacies in publications in which destructive dilemma was refuted by counter dilemma and invents a method that corrects the fallacy.

Findings: In the diagnostic process, it was discovered that, the way the destructive dilemma is refuted by counter dilemma had a logical problem due to some reasons.

- Two different views on types of dilemma: There are two schools of thought with different views of the distinction between a constructive and a destructive dilemma. Those who define and identify constructive and destructive dilemmas based on content (material validity) with logicians such as Douglas Walton and others who define it with respect to the form of the argument (formal validity) than the content with thinkers like Copi and Hurley . The former differentiates the constructive and destructive dilemma by the nature of the horns. They say constructive have desirable while destructive have undesirable horns. The other identifies them by their structure. A constructive dilemma is one that the horns affirm the antecedents and the conclusion affirms the consequents while the horns of a destructive denies the consequents and the conclusion denies the antecedents of the conditional parts of the conjunctive premise. The former construct all its dilemmas in one way – what the latter calls constructive dilemma. So its destructive dilemma (undesirable horns) is seen as a constructive dilemma by the formal validity method. To succeed to get a counter dilemma of a destructive dilemma, there is the need to clearly determine what is a destructive dilemma, this article has handle that.

- The two schools of thought also have different approaches on counter dilemma: Since the former differentiates a constructive and destructive dilemma by desirable and undesirable alternatives, its destructive dilemma is what the latter calls constructive dilemmas because the horns affirm the undesirable antecedents and the conclusion affirms the undesirable consequents. Getting the counter dilemma of such a dilemma, while the former will accept it as successful, the later will consider it as the refutation of a constructive than a destructive dilemma. This difference has to be clarified and makes the counter dilemma method of refutation still challenging.

- Formal validity method fails to establish procedure for counter dilemma. Those who define dilemma types by form have not treated examples of refuting destructive dilemmas by counter dilemma. When treating dilemma, they do not sit to give the general procedure of producing counter dilemma of any given dilemma. They only define it then takes an example which is always a constructive dilemma, refute it by a counter dilemma and that's all. They swap the consequents of the conditional parts of the conjunctive premise by their compliments. They do same at the conclusion. This leaves us with ignorance of the underlying rules for the method, hence a challenge with the destructive dilemma.

- Many philosophy teachers get challenged to get a counter dilemma of a destructive dilemma. Many, if not all have adopted the definition of types of dilemma given by thinkers of the form (Formal validity) and since these thinkers treat only constructive dilemma, many logic teachers try to get the counter dilemma of destructive dilemma by applying the procedure used to get the counter dilemma of constructive dilemma as it's the only procedure available. This, they see as not working since the alternatives of the conclusion are not consequents but antecedents.

Faced with these challenges, there is the necessity of given a clear procedure of getting a counter dilemma of any given dilemma, be it constructive or destructive.

Unique Contribution to dilemma refutation: In order to deal with the above worries, there is first, the need of getting a clarification on a constructive and destructive dilemma. Nevertheless, I decided to adopt the definition by formal logicians such as Copi in the differentiating the two types of dilemma. After that, we propose a clear procedure to get the counter dilemma of any dilemma. It is on these two worries that the purpose of this article rest so as to give a logical solution to these issues. This article has clearly defined a constructive and destructive dilemma following the Modus Ponens and Modus Tollens approaches given by formal

logicians. By this, we need not consider if the alternatives are desirable or undesirable to determine if a dilemma is constructive or destructive; but just suffice us to identify the form in order to determine the type. Again, since these logicians have not given any example of refuting a destructive dilemma by counter dilemma, this paper, has gone to propose a procedure that can be used to produce a counter dilemma of any given dilemma. By this procedure, it will show clearly that the procedure that Copi and other logicians have used to get the counter dilemma of a constructive dilemma, is just an instance of this procedure proposed by this article.

Keywords: ***Dilemma*, *Refutation, Rebuttal, Counter Dilemma, Destructive Dilemma.***

INTRODUCTION

There is no gain saying that in every intellectual combat there are many techniques used by the opponents to present their arguments and counter arguments so as to become victorious at the end of the battle and one of such techniques is dilemma and its refutations. A dilemma is an argument in logic that comprises of three propositions: the premises and a conclusion. One of the premises is a conjunction of hypothetical propositions and the other, a disjunctive one while the conclusion is categorical (simple) or disjunctive (complex). It is therefore a form of a mixed hypothetical syllogism. Like any mixed hypothetical syllogism, it might be in the affirmative mode in which the disjunctive premise (known as the horns) and the conclusion affirm the parts of the hypothetical premise (constructive). In this case, the disjunctive premise affirms the antecedents while the conclusion affirms the consequents of the conjunctive premise (*like modus ponens argument)*. The dilemma might also be of the destructive form where the disjunctive premise ***denies*** the consequents and the conclusion denies the antecedents of the conjunctive premise (*like a modus tollens argument*).

The dilemma is important in many aspects. In every intellectual battle, the parties might employ tools or techniques to trap down or put their opponents into captivity so as to gain victory at the end. The dilemma is one of such techniques a thinker might use to trap down his opponent in an intellectual game. Reason Quine defines it as: *"… a choice between two unfavourable alternatives*"[1]. In this case, the dilemma in essence, is an argumentative device in which syllogisms on the same topic are combined, sometimes with devastating effect. The premises of the syllogisms so combined are formulated disjunctively, and devised in a way designed to trap the opponent by forcing him to accept one or the other of the disjuncts. Thus the opponent is forced to accept the truth of the conclusion of one or the other of the syllogisms combined. When this is done successfully, the dilemma can prove to be a powerful instrument of persuasion as said by Aristotle: *"…the dilemma is a powerful instrument of persuasion, for it presents the opponent with a choice between two alternatives, both of which are unfavourable to him*"[2]. People often say somewhat loosely that a person is "in" a dilemma (or "impaled on the horns of a dilemma") when that person must choose between two alternatives, both of which are bad or unpleasant. The dilemma is therefore, a form of argument intended to put one's opponent in just that kind of position. In debate, one uses a dilemma to offer alternative positions to one's adversary, from which a choice must be made, and then to prove that no matter which choice is made, the adversary is committed to an unacceptable conclusion. The distinguished physicist Richard Feynman for example, recounting his experiences in the 1986 investigation of the catastrophic explosion of the Challenger space shuttle, was caustic in his criticism of mismanagement by administrators in the National Aeronautics and Space Administration (NASA). He said: "Every time we talked to higher-level managers, they kept saying they didn't know anything about the problems below them… Either the group at the top didn't know, in which case they should have known, or they did know, in which case they were lying to us".[3]

An attack of this kind is designed to push the adversaries (in this case the NASA administrators) into a corner and there annihilate them. The only explicitly stated premise of the argument is a disjunction, but one of the disjuncts must obviously be true: Either they knew or they didn't know about the problems below them. And whichever disjunct is chosen, the result for the adversary is very bad.

One may use a dilemma also to defend his point, especially if he desires that, the point is supposed to be accepted. For example, a college principal might want to discourage bonus marks or any form of motivations rendered to students by some teachers. In order to proof his point that such act or motivation is not needed by learners, he might decide to present his argument in the form of a dilemma such as:

If students are fond of learning, then they need no stimulus and if they dislike learning, then any stimulus applied will be of no avail.

But students are either fond of learning or dislike it

Therefore, a stimulus isn't needed or any stimulus applied will be of no avail.

So the thinker, after succeeding in proving the conclusion, has told his opponent that given those premises, he is determined to land to the conclusion.

A dilemma need not always have an unpleasant conclusion. An example of one with a happy conclusion is provided by the following simple dilemma: If the blest in heaven have no desires, they will be perfectly content; so they will be also if their desires are fully gratified; but either they will have no desires, or have them fully gratified; therefore, they will be perfectly content.

Dilemma Refutation

From the above importance of a dilemma, one could see clearly that, it's good to be able to refute a dilemma so that one cannot be easily trapped down in a debate. To refute a dilemma is to go out of the trap of the dilemma. This means to reason logically and without distorting the validity of the dilemma,

[1] Willard Van Orman Quine, *Methods of Logic*, New York, Holt, Rinehart & Wilston, 1950, p. 77.s
[2] Aristotle, "Rhetoric", Book II, chapter 23, 1398a, trans. W. Rhys Roberts, 1924, p.221.
[3] Richard P. Feynman, *What Do You Care What Other People Think? Further Adventures of a Curious Character*, W.W. Norton & Company, New York, 1988, p. 214.

one obtains a different conclusion from that intended by the dilemma. Like the example above, if the Principal's opponent is a good thinker too, he might respond by evading his dilemma. He can do that either by identifying and pointing to the fact that at least one of the parts of the conjunctive premise (the conjuncts) is false (if at all it is). If this is successful, it will automatically give grounds to deny the truth of the conclusion. By this, we say, the dilemma is refuted by *Grasping it by the horns*. He might as well not follow that method but simply deny the mutual exclusivity of the disjunctive premise, in case the premise does not exhaust the alternatives. This too gives grounds to deny the truth of the conclusion. With this method, he has *Escaped between the horns of the dilemma.*

What if one is faced with a dilemma whose horns can't be grasped nor can one pass between them, does it mean such a dilemma cannot be evaded? I mean, if someone is plunged into a dilemma whose horns are mutually exclusive, hence the disjunctive premise has exhausted the alternatives; also the conjunctive premise has no flaw, making the dilemma sound, can there not be any means to evade such a dilemma?

If one finds himself in that confusion, the only way to successfully challenge the conclusion of such an argument is by a counter dilemma. If so, what does it mean then and is there a clear procedure to deal with that? What is a counter dilemma? Schopenhauer defines a counter dilemma as: "*… a dilemma which is opposed to another dilemma, and which, while admitting the premises of the latter, draws from them a conclusion which is the direct opposite of that drawn by the first dilemma*"[4]. Despite the clear definition of a counter dilemma such as that given by Schopenhauer and others, yet there is still a worry on the refutation of a destructive dilemma by a counter dilemma. The method of refuting a dilemma by a counter dilemma has been treated in many logic books but unfortunately not to a satisfaction. This is because, most of the books do not settle down to deal with the concept squarely but just shallowly go through it by the treatment of an example which is mostly a constructive dilemma. When they have rebutted the dilemma by producing its counter, they seem to have treated that concept but something is left out- the procedure of refuting by a counter dilemma. A counter dilemma is a dilemma that has an opposite conclusion from the given. The challenge of producing a counter dilemma of a destructive dilemma is revealed especially by many high school teachers. Trying to apply same technique used to refute a constructive dilemma, they discover they are hooked up. This paper thus, explains the cause of the challenge, provides the solution by proposing a procedure for dilemma refutation by a counter dilemma.

1. CHALLENGE ON COUNTER DILEMMA OF DESTRUCTIVE DILEMMA.

No clear example has been observed in books where a destructive dilemma has been successfully refuted by a counter dilemma. The fact that most of the books are giving examples only of constructive dilemma, many high school teachers and other philosophers find it difficult to refute a destructive dilemma by the use of this method while the majority uses the procedure applied for constructive dilemma to refute a destructive one which does not give a logical refutation. As a pedagogic inspector, I had to investigate on the issue, which led to the putting down of this paper. Many factors had led to the difficulty of this such as:

1.1. DIFFERENT DEFINITIONS ON CONSTRUCTIVE AND DESTRUCTIVE DILEMMAS.

Different logicians hold different views on dilemma.

1.1.1. Definition by Content (Douglas Walton).

Among many thinkers that have defined dilemma based on material validity or based on content than the form is Douglas Walton. Walton differentiates constructive and destructive dilemmas on two points.

- Aims: Douglas Walton differentiates a constructive dilemma and a destructive dilemma in terms of establishing a point and refuting a point. He says in his various publications on argumentation theory and informal logic, Walton defines a Constructive dilemma as a type of argument that presents two alternatives and conclusions, with the aim of establishing a point. On the other hand, a destructive dilemma is a type of argument that presents two alternatives and conclusions, with the aim of refuting or undermining an opposing argument or point of view.
- Desirability: In another publication in his informal logic, Walton says – "a constructive dilemma has two conditional premises leading to a disjunctive conclusion of desirable alternatives while a destructive dilemma leads to a disjunctive conclusion of undesirable alternatives"[5]. Meaning if we see a dilemma with desirable alternatives leading to an undesirable conclusion, then it's a destructive dilemma.

These two points make us understand that to Walton, the argument's form or structure has nothing to do with the argument, rather its content is what matters. Example of a destructive dilemma.

Example:

If you support the new tax policy, then you are increasing the burden on low-income families and if you don't care about education, then you are neglecting the future of our children.

Either you support the new tax policy or you don't care about our children.

[4] Arthur Schopenhauer, "*The Art of Controversy*" (Eristische Dialektik), trans. T. **B**ailey Saunders, London, Sonnenschein & Co, 1910, p. 45.s
[5] Douglas Walton, *Informal Logic: A Handbook for Critical Argumentation*, Cambridge, Cambridge University Press, Revised Ed. 1989.

Therefore, either you are hurting low-income families or neglecting the future of our children.

The above argument is considered as a destructive argument even though the minor premise and the conclusion are affirming the parts of the major premise. Since

1.1.2. Definition by form (Patrick Hurley)

Patrick Hurley and many other logicians define dilemmas by virtue of their structure or form irrespective of their content. In that case, they may aim at establishing desirable or undesirable conclusions. Hurley define thus: "A constructive dilemma is a valid argument form that consists of a conjunctive premise made up of two conditional statements, a disjunctive premise that asserts the antecedents in the conjunctive premise (like modus ponens), and a disjunctive conclusion that asserts the consequents of the conjunctive premise"[6]. He further defines the form as: "It is defined as follows:

Constructive dilemma (CD): (p ⊃ q) ● (r ⊃ s)

p v r

∴ q v s.

Any argument that has the form of a constructive dilemma is a valid argument."[7]And for a destructive dilemma, he defines it as: "The destructive dilemma is also a valid argument form. It is similar to the constructive dilemma in that it includes a conjunctive premise made

up of two conditional statements and a disjunctive premise. However, the disjunctive premise

denies the consequents of the conditionals (like modus tollens), and the conclusion denies the antecedents."[8] He clearly gives the structure of the argument as: "*A destructive dilemma:*

(p ⊃ q) ● (r ⊃ s)

~q v ~s

∴ ~p v ~r

Any argument that has the form of a destructive dilemma is a valid argument."[9]

From the two schools of thought, we have seen that a destructive dilemma can be presented differently. While the former concerns itself with the content, the latter identifies a destructive dilemma in terms of form. The above destructive dilemma given above in definition by content, will be identified as a constructive dilemma by Hurley and other proponents of syntactic arguments. These differences contribute to the challenge faced by producing a counter dilemma of a given destructive dilemma.

1.2. COUNTER DILEMMA PRODUCTION CHALLENGE

The above schools of thought do not just end at a difference in their definitions of a dilemma but also in their definition and approach of getting a counter dilemma.

1.2.1. Counter dilemma based on Content of the dilemma:

Those who view a destructive dilemma as an argument with two alternatives aiming at establishing an undesirable conclusion, irrespective of the structure, tend to define a counter dilemma as a means getting a new conclusion that undermines that of the given dilemma. The above dilemma can thus be refuted by counter as:

If you support the new tax policy, then you are ensuring that schools receive much – needed funding and if you don't care about education, then you are willing to let the private sector provide alternative solutions.

Either you support the new tax policy or you don't care about our children.

Therefore, either you are supporting education or promoting innovative solutions.

From the above refutation, we can see that the essence is to get new consequents that undermine those of the given dilemma so as to undermine its conclusion.

Patrick J. Hurley, "*A Concise Introduction to Logic*", Cengage, University of Saint Diego, USA, 2023, Ch. 6, p.320
[7]*Idem*
[8]*Idem*
[9]*Idem*

1.2.2. Counter dilemma based on Form of the dilemma.

Thinkers who define a dilemma based on the form will certainly identify the above refutation as that of a constructive dilemma and even consider the given dilemma as a constructive one. But with this school of thought, even though its advocates are many and the approach is the most common, yet no one of them has settled down to treat the counter dilemma and to provide a clear procedure of it. They mention it in a hurry by treating an example which is always a constructive dilemma. For example, Copi takes the famous dilemma of an Athenian mother and gives the counter dilemma where she says: "*To rebut a given dilemma in this way, one constructs another dilemma whose conclusion is opposed to the conclusion of the original. Any counter dilemma may be used in rebuttal, but ideally it should be built up out of the same ingredients (categorical propositions) that the original dilemma contained. A classical example of this elegant kind of rebuttal concerns the legendary argument of an Athenian mother attempting to persuade her son not to enter politics*:"[10] we can see that, he hasn't laid down any procedure, rather he goes straight to solve his example. By this, they fail to lay down the procedure of a counter dilemma. The only author I tried to come across who almost touched the point but didn't is Hurley. He says: "indirect strategy for refuting a dilemma involves constructing a counter-dilemma. This is typically done by changing either the antecedents or the consequents of the conjunctive premise while leaving the disjunctive premise as it is, so as to obtain a different conclusion."[11] Changing the antecedents or consequents as the means of getting a counter dilemma of a given dilemma is not self-explanatory. A learner will still be confused except examples are done. since most of the examples are constructive.

1.3. IMPLICATION OF THE ABOVE TWO APPROACHES.

1.3.1. A LOGICAL ERROR

The view of treating a dilemma based on the content by which all dilemma whether constructive or destructive, are constructed by getting the consequents at the conclusions; the fact also where the other school of thought have treated mostly counter dilemma of constructive dilemma, has made it seem as if the procedure of a dilemma faces that of a constructive dilemma. Hence the procedure they offer is:

- Deny and swap the consequents of the conditionals of the conjunctive premise.
- Do same with the conclusion.

Normally, they do not say this is the procedure to get counter dilemma of any given dilemma; for example, Susan Stebbing takes the famous dilemma of an Athenian mother and gives the counter dilemma where she says: "The rebuttal consists in transposing the two consequents and contradicting."[12] But since it's the method they use to rebut their examples of constructive dilemmas, the only method that exist, and for the fact that they do not precise that its applicable only to constructive dilemmas, many learners and researchers consider it as the method to get the counter dilemma of any dilemma and this is just what follows by many. So I assume it is the method that exist. If this is so, then let's examine the method to see if it actually succeeds in getting counter dilemmas.

Let's see how the method works with two examples: a constructive and a destructive. Let the constructive be taken from that of the famous ancient Greece dilemma where in order to discourage the son from joining politics, a mother puts the son in a dilemma as.

Example 1. A Constructive Dilemma

Given dilemma

If you say what is wrong, the gods will hate you and if you say what is right, men will hate you.

But you must either say what is wrong or right.

Therefore, whatever you say, you will be hated.

Analysis of the argument:

The son quickly observed that:

- it is true that he must say either what is right or say what is wrong.
- Also that his mum has only painted the reactions of the gods towards he who says what is wrong but has covered that of men towards such a person. He observed same line of thought in the second conjunct of the major premise. So he quickly painted the side the mother had overlooked and replied the mother thus:

Counter Dilemma.

If I say what is wrong, men will not hate me (will love me) and if I say what is right, the gods will not hate me (will love me).

---

[10] Irving M. Copi, "*Introduction to Logic*", Edinburgh Gate, Harlow, England, Pearson, 2014, p.291.
[11] *Ibid*.
[12] L. Susan Stebbing, "A Modern Elementary Logic", London, University Paperbacks, Methuen & Co Ltd, Revised, 1952, p.53.

But I must either say what is wrong or right

Therefore, I will neither be hated by the gods nor by men.

From the above we can see that the son just *'denied and swapped'* the both consequents at the level of the major premise and also at the conclusion.

Let us see another example, this time around, consider that the Athenian mother provided but a destructive dilemma to the son thus:

Example 2: A Destructive Dilemma

If he enters the room, he must see the keys and if he enters the kitchen, he must see the knife.

Neither has he seen the keys nor seen the knife.

Therefore, neither has he entered the room nor entered the kitchen.

Refuting the above dilemma, most teachers and thinkers apply the above procedure thus:

Counter Dilemma 1.

If he enters the room, he must not see the knife. and if he enters the kitchen, he must not see the keys.

Neither has he seen the keys nor seen the knife.

Therefore, neither has he not enter the room nor not enter the kitchen.

Others who are smarter get hooked up at the level of the conclusion when they realize that the parts of the conclusion they are supposed to deny and swap, is different from that of the major premise.

I see a logical failure with the above refutation because the part that is been denied and swapped at the major premise doesn't give an inferential consequence to the conclusion, hence it's a blind movement done by the thinker.

1.3.2. AMBIGUITY OF THE TERM CONSEQUENT

The above logical error might have some cause. This is due either to the fact that they have misunderstood the procedure or the procedure is wrongly presented. It is also possible that the word "Consequent" in the procedure is ambiguous. For the word might be taken into these two meaning.

Firstly, the word consequent might be understood as the second part of a conditional proposition. The consequent of a hypothetical proposition is the part that comes after the word "then". In this sense, it is seen as the necessary condition of the proposition in which, given as false, the sufficient condition (antecedent) cannot be true. In this case, constructing a valid *modus tollens*, the consequent will be denied as one of the two premises, given a conclusion which is the denial of the antecedent as seen below.

$P \supset Q$

Not Q

Therefore, not P.

Based on this meaning, the conclusion is the denial of the antecedent.

If this is true then the procedure which says *"the consequents must each be replaced by the complement of the other",* must thus be misleading since the teacherhas the right to deal with the consequents of the major premise, which of course doesn't imply the conclusion. This is the main reason the smarter teachers got hooked at the level of the conclusion.

Secondly, the word 'consequent' might mean the implied part of an argument. It can be seen as the inferred or conclusion of an argument. It is that which necessarily follow from one or more premises in a valid argument. If we go by the law of contraposition of "$P \supset Q$", we will get "Not $Q \supset$ not P" in which the antecedent is 'Not Q' while the consequent is "not P", hence the consequent of "$P \supset Q$ and Not Q" is "Not P". this means:

Given: $P \supset Q$, Not Q, the consequent must be 'Not P'

If this is true, then we have two possibilities in which the meaning of the word 'Consequent' in the common procedure can be interpreted, making it ambiguous.

It is based on this that I see this article as very important to give some light on the prevailing issue by providing a clear procedure for counter dilemmas.

Normally these books have not intended to thoroughly tell us what dilemma refutation is all about; better still, they treat the topic with examples of a constructive dilemma, thereby failing to establish the rules for refuting all dilemmas whether constructive or destructive. Teachers/ thinkers therefore fail to understand that the rule of refuting a constructive dilemma by a counter dilemma is just an instance or the application of the actual rules or procedure of counter dilemmas. Maybe there exist books which have treated counter dilemmas of the destructive dilemmas, but I have not seen.

2. PROCEDURE FOR REBUTTAL BY COUNTER DILEMMA

Remember that the target is to obtain a different conclusion from the given dilemma while maintaining the logic of the argument as clearly defined by Schopenhauer. This needs a mastery of rhetoric and logical skills.

This method is used when the alternatives exhaust the possibilities and so the argument is a valid one. Since the premises are solid and unassailable, the only means of challenging such a dilemma is by demonstration of logical principles. Thus, the procedure this article is proposing is this:

Procedure:

- Identify the alternatives found in the conclusion (teachers can tell students to underline the alternatives of the conclusion with a pencil).
- Go to the conjunctive premise and identify those same alternatives.
- Deny each of them and swap in both the premise and the conclusion.

Note: If the above rules are followed, we'll realize that, for a constructive dilemma, we shall handle the consequents (procedure popularly offered) while for a destructive dilemma, we'll handle but the antecedents. Also note should be taken that, these rules consider the fact that every sufficient condition leads to a necessary one and if two sufficient conditions are mutually exclusive, then their necessary conditions will also be mutually exclusive. In that case, the one sufficient condition doesn't lead to the necessary condition of another sufficient condition. This is simply what the procedure means.

Let's take some examples to see how our procedure functions:

Example 1: Constructive Dilemma.

Given dilemma:

If it rains, places will be wet and if it shines, places will be dry.

Either it rains or it shines.

Therefore, either places are wet or they are dry.

Rebuttal:

If it rains, **places are not dry** and if it shines, **places are not wet.**

Either it rains or it shines.

Therefore, either **places aren't dry** or **are they not wet**.

Justification: the major premise of the dilemma states that: "*antecedent 1 implies consequent 1 and antecedent 2 implies consequent 2*". Given that information, the dilemma presenter is rest assured that his conclusion is unassailable, but he fails to understand that his major premise could obtain different interpretations which will give way for different conclusions. This is just what his opponent does by a counter dilemma. He tells him that the same major premise means that "*antecedent 1 doesn't imply consequent 2* and *antecedent 2 doesn't imply consequent 1*".

Example 2. Destructive dilemma:

If it rains, places will be wet and if it shines, places will be dry.

Neither are places wet nor are they dry.

Therefore, neither is it raining nor does it shine.

Rebuttal by Counter Dilemma:

If **it doesn't shine**, places will be wet and if **it doesn't rain**, places will be dry.

Neither are places wet nor are they dry.

Therefore, neither **does it not shine** nor **does it not rain** / either does it shine or does it rain.

Justification:

This also tells us that since every antecedent gives its consequent, the new major premise tells us that "it is not antecedent 2 that implies consequent 1 and it is not antecedent 1 that implies consequent 2".

The dilemma is saying that, given certain conditions the conclusions are inevitable. In other words, the destructive dilemma is saying that if we don't get the expected results (consequents in the minor premise), then it's clear enough that we didn't obey the sufficient conditions. While the major premise gives the conditional rule, the minor premise tells us how we haven't gotten the necessary conditions (expected consequents), which guarantees the conclusion in saying that we did not meet up with the sufficient condition.

Producing a counter dilemma on the other hand, you are telling the opponent that you don't get his expected results (necessary condition) whereas you met up with the sufficient conditions.

3. CRITICAL EVALUATION

Here we have to examine some critics which tend to degrade the justification or sense of this method of refutation. They say it only seem to have refuted but in actual fact, it hasn't done any logical refutation. But I have shown justifications of the credibility of this method of refutation.

3.1. SOME CRITICS ON THIS METHOD OF REFUTATION.

1. Some critics of this method of rebuttal say, if we examine the given dilemma and its counter dilemma more closely, we see that their conclusions are not as opposed as they might at first have seemed. For example, the dilemma and the counter dilemma of the Athenian woman and the son, the conclusion of the first dilemma is that the son will be hated (by men or by the gods), whereas that of the rebutting dilemma is that the son will be loved (by the gods or by men). However, these two conclusions are perfectly compatible.
2. The counter dilemma serves merely to establish a conclusion different from that of the original. Both conclusions may very well be true together, so no refutation has been accomplished. But in the heat of controversy analysis is unwelcome, and if such a rebuttal occurred in a public debate, the average audience might agree that the rebuttal was an effective reply to the original argument. That this sort of rebuttal does not refute the argument but only directs attention to a different aspect of the same situation is perhaps more clearly shown in the case of the following dilemma, advanced by an "optimist": If I work, I earn money, and if I am idle, I enjoy myself. Either I work or I am idle. Therefore, either I earn money or I enjoy myself. A "pessimist" might offer the following counter dilemma: If I work, I don't enjoy myself, and if I am idle, I don't earn money. Either I work or I am idle. Therefore, either I don't earn money or I don't enjoy myself. These conclusions represent merely different ways of viewing the same facts; they do not constitute a disagreement over what the facts are.

3.2. OBJECTIONS TO THE ABOVE CRITICS

I have some objections to make to the above criticisms of the counter dilemma method of rebuttal.

1. The first objection to the above critic is to the first point of critic. It says that the fact that the conclusions only seem to oppose each other but in actual fact they do not. This is not true based on the notion of syntax and semantics. The fact that, the syntax of a phrase is different from the semantics is enough to prove them as different statements. A topic in logic known as Eduction, considers equipollent propositions as different statements even though they express same meaning. For example, "*No S are P*" and "*All S are non-P*" are two different statements. While the first is an E statement, the second is an A although they have same meaning. So too these two conclusions 'p or q' and 'not q or not p' are different because the first disjunct of one is 'p' while that of the other is 'not q'. these two parts are different from each other; likewise, the second parts. Bertrand Russell makes this clearly that: "Two propositions are equipollent when they have same truth-value, they are not identical, since they differ as regards the words that occur in them."[13]By implication the two conclusions seem not to be different but they are actually different statements.
2. That the method only seeks to establish a conclusion different from the original one and that no actual refutation has taken place.

If the method has succeeded in establishing another conclusion different from the original, then the method has succeeded in its mission since that is the target of refutation, otherwise we wouldn't use the phrase 'different conclusion'. Remember that the opponent's purpose is that you cannot arrive to another conclusion other than the one provided by the dilemma. In establishing another conclusion on the grounds of same premises, one is pointing the opponent to what he didn't see in his argument, hence one has brilliantly refuted his opponent's argument.

3.3. STRENGTH OF THE METHOD

Despite the critics of this method of rebuttal, there are at least some merits.

1. It challenges the Original dilemma. Despite the unassailable nature of the dilemma, yet this method is able to challenge the premises of the argument thereby forcing the opponent to re-examine his premises. Here Arthur Schopenhauer says: *"…the counter-dilemma is the most effective of all weapons, for it puts the opponent in the same position in which he had placed us, and thus deprives him of his advantage*"[14]. By this the desires of the opponent are frustrated since he is plunged into his very trap.
2. It creates a new perspective. By presenting a new dilemma that is directly opposing the original one, a counter dilemma can offer a fresh perspective on the issue, highlighting new considerations and potential consequences that may not have been previously considered. In line with this point, Mill writes: "*The counter-question or the turning of the tables, is a most useful instrument of dialectic… It is a powerful means of showing that the difficulty is not peculiar to one side, but is common to both.*"[15] For example, in the case of Aristotle's dilemma about

[13] Bertrand Russell, "*Introduction to Mathematical Philosophy*", London, George Allen & Unwin Ltd, 1st Ed. 1919, p.136.
[14] Arthur Schopenhauer, *The Art of Controversy (Eristische Dialektik)*, trans. T. bailey Saunders, 1910, p44
[15] Mill, J. S, "*A System of Logic, Ratiocinative and Inductive*", (8th ed.). London: Longmans, Green, Reader, and Dyer. 1883. Book V, Chapter VII P.

determinism, a counter-dilemma can be constructed to challenge the assumption that our choices are predetermined. This counter-dilemma can highlight the possibility that our choices may be influenced by factors outside of our control (argument from fatalism), but still allow for some degree of free will.

Overall, by creating a new perspective on the issue, the counter dilemma challenges assumptions, and highlights new considerations and potential consequences.

CONCLUSION

We have been preoccupied with the problem of getting a procedure that can be used to deliver the counter dilemma of any given dilemma. The aim of this, is to solve the existing challenge of rebutting a destructive dilemma by a counter dilemma. This problem, as we have seen, stemmed from some reasons. First is due to the different definitions and constructions provided to the different types of dilemmas by the different schools of thought (the materially valid and the formally valid approaches. Here, we said the materially valid approach differentiate constructive and destructive dilemmas by desirable and undesirable alternatives while the formally valid differentiates them by the affirmative and negative forms just like modus ponens and tollens.

This difference makes dilemmas of the materially valid approach including the destructive reflect just constructive dilemma of formally valid approach. In that case, counter dilemma of a destructive dilemma by materially valid approach are all considered by formally valid approach as counter dilemma of constructive dilemma. In that case, the fact that the formally approach treats only counter dilemma of constructive dilemma, and its failure to establish a procedure that can be used to get the counter dilemma of any given dilemma, the challenge of getting counter dilemma of the destructive dilemma exists. It becomes the objective to produce the procedure of getting the counter dilemma of any given dilemma so that from it we can get that of a destructive dilemma. This solution has been done first by appealing to the formally valid approach of determining the different types of dilemma. The constructive dilemma as one that the horns affirm the antecedents while the conclusion affirm the consequents of the conditional parts of the conjunctive premise. The destructive dilemma denies the consequents and conclusion denies the antecedents. After that has been established, the procedure by identifying the alternatives at the conclusion. We swap them by their complements both at the conjunctive premise and at the conclusion. If this is followed, we'll realize that for a constructive dilemma, we shall be getting a counter dilemma which has interchanged the consequents by the complements of the original dilemma while for a destructive dilemma, we shall interchange the antecedents by their complements. This at least, clears off the worry of getting the counter dilemma of a destructive dilemma.

Reference:

- Aristotle (384-322 BCE), "(*De Sophisticis Elenchis)* '*On Sophistical Refutayions',* (W. A. Picard-Cambridge, Trans.). Oxford: Oxford University Press.
- Schopenhauer, A. "*The Art of Controversy (Eristische Dialektik),* (T. B. Saunders, Trans.), London: Swan Sonnenschein & Co, 1910.
- Russell, B. "*Introduction to Mathematical Philosophy*", London: George Allen and Unwin, 1919.
- Galen's work "Institutio Logica" on Chrysippus (280-206 BCE), "*On Dilemmas"*.
- Chrysippus (280-206 BCE), "*On the Liar Paradox*", (Translated and cited in various secondary sources, such as Sextus Empiricus. (circa 2nd3rdcentury CE). Outlines of Pyrrhonism, Book II, Chapter 216-218.
- Mill, J. S, "*A System of Logic, Ratiocinative and Inductive*", (8th ed.). London: Longmans, Green, Reader, and Dyer. 1883.
- Lukasiewicz J. (1970). *Many-valued logic.* In Selected Works (S. McCall, Ed.). Amsterdam: North-Holland Publishing Company.
- Rescher, N. "*Dialectics: A Controversy-Oriented Approach to the Theory of Knowledge*", Albany: State University Press, 1977.
- Patrick J. Hurley, "*A Concise Introduction to Logic*" Cengage learning 2023
- Abelard, P. (circa 1120), "*Dilectica*". (L. M. de Rijk, Ed.). Assen: Van Gorcum, 1970.
- Richard P. Feynman, "*What Do You Care What Other People Think?* Further Adventures of a Curious Character", W.W. Norton & Company, New York, 1988.
- Fogelin, R. J. "*Understanding Arguments: An Introduction to Informal Logic*" New York: Harcourt Brace Jovanovich, 1978.
- Quine, W. V. O. "*Methods of Logic*", New York: Henry Holt and Company, 1950,

542.