On Freeman's Argument Structure Approach

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Abstract

Freeman's argument structure approach (1991, revised in 2011) makes up for some deficiencies of the standard approach and the Toulmin model respectively. It clarifies Toulmin's dim understanding of modal qualifiers, not only can characterize a complicated argument that consists of multiple sub-arguments, but also can reflect the dialectical tier of an argument better and more precisely. Meanwhile, the concept of "basic dialectic situation" shows the development of the meta-theory on argument. In short, Freeman's approach is more suitable as a general argument model. However, there are some problems with it. Freeman's rebuttals are not in Toulmin's sense while he thinks it is. There is another type of rebuttal which will weaken the premises of an argument and the corresponding counter-rebuttal that Freeman neglects. And some notations in Freemans diagram, such as "="," ↓ " between the counter-rebuttal box and the rebuttal box, are somewhat problematic.

1 Introduction

The issue of argument structure is very important in the fields of informal logic. By an argument diagram, people can easily see how the components of an argument fit together as wholes to support a claim. In this respect, Wigmore chart (1913) may be the earliest effort. The argument structures, such as convergent, linked, serial and divergent structure, proposed by Beardsley in 1950 and improved by Thomas in 1973 (hereinafter refer to them as "the standard approach" as Freeman) and the Toulmin model including six elements of claim, data, warrant, backing, modal qualifier and rebuttal, which is proposed by Toulmin in 1958, are two typical approaches of argument structures. By the integration and modification of the standard approach and the Toulmin model, Freeman put forward an argument structure approach in 1991(revised in 2011). This paper is mainly about Freemans approach.

2 Freeman's approach

Based on the integration and modification of the standard approach and the Toulmin model, there are five elements in Freeman's approach, which are premise, conclusion, modality, rebuttal and counter-rebuttal. Among them, premise and conclusion are two basic elements, while the other three may or may not appear in an argument.

Similar to the standard approach, premises in an argument can be combined in different ways to support a conclusion in Freeman's approach, such as linked, convergent or serial structure [cf. Fig.1 and Fig.2, examples of convergent structures, Fre11, p.23]. Since a divergent structure can be divided into two sub-arguments, it is not regarded as a basic argument structure in Freeman's approach. Moreover,Freeman's definitions of a linked structure and a convergent structure are different from those in the standard approach. It will not be discussed in this paper because of the complexity of the problem.
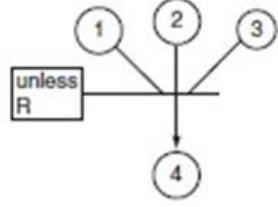

Figure 1
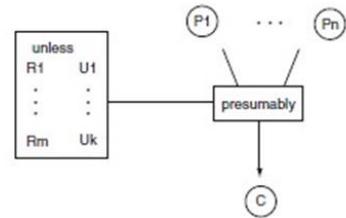
Figure 2

Freeman prefers the word of "modality" to Toulmin's "modal qualifiers". He let the modality box interrupt the arrows connecting the premises to conclusion, since "modality" means how strongly the premises support the conclusion (cf. Fig.2, which indicates the combined strength of P1,..., Pn to support C). If there is no explicit modality word in an argument, then substitute a horizontal line for the modality box, that is, interrupt the arrows connecting the premises to conclusion with a horizontal line (cf. Fig.1). In Freeman's words, "the horizontal line resembles a pan on a balance scale. All the premises are being put together on that pan so that their combined weight may tip the scale in favor of the conclusion" [Fre11, p.23].

With the influences of Pollock and Pinto, Freeman distinguishes two types of rebuttals. One is R (i.e., a rebutting defeater), which "may constitute evidence negatively relevant to the conclusion being argued". The other is U (i.e., an undercutting defeater), which "call into question the reliability of some inferential move from premises to conclusion" [Fre11, pp.20-21]. Freeman places the two types of rebuttals (U and R) in a rebuttal or defeater box attached to the modality box (cf. Fig.2).

Accordingly, there are two types of counter-rebuttal in Freeman's approach, which call into question U and R respectively. The counter-rebuttals that counter R can be classified further as follows:

(1) A counter-rebuttal which directly indicates that R is false.

Case 1: ①< Zhang San kills Li Si. > So, presumably , ②< Zhang San will be sentenced to death >Unless (R) < Zhang San's behavior is due to self-defense. > But ③< Li Si is deliberately killed by Zhang San. >Because ④< Li Si stabbed Zhang San's son with a scissor two years ago. >
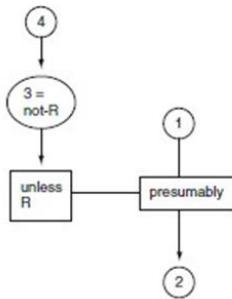

Figure 3
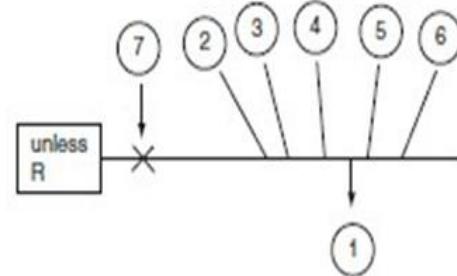
Figure 4

In the above argument ④ supports ③, hence, ④ and ③ make up a sub-argument. ③ is a counter-rebuttal, which indicates that R is false. In addition, ③ gives additional evidence for the conclusion of ②, so a downward arrow is used to represent the supportive relation (cf. fig.3). If a counter-rebuttal only indicates that R is false while does not give additional evidence for conclusion, the head of the arrow will be omitted (i.e., drawing just a line to the defeater box). Let ③' = <Zhang San's behavior is not due to self-defense> and replace ③ with ③', then the situation may arise.

(2) A counter-rebuttal which only can undercut R.

24

Case 2: ①< The defendant murdered his father.> because ② < investigators found the crime tool from the defendant.> ③ < The defendant has blood on his body.> ④ < The relationship between the defendant and his father has always been bad.> ⑤ < At the time of the incident, the neighbors heard the defendant shouted, "I want to kill you".> ⑥< A female witness affirmed that she saw the defendant is stabbing his father with a knife in a room across the street.> But (R) < The defendant's friend proved that the defendant was seeing a movie with him at the time of the incident.> ⑦ < When the prosecution asked the friend of the defendant what was the name of the movie, he did not make the right answer.>

According to Freeman, ②③④⑤ ⑥ separately support ②. ⑦is a counter-rebuttal. Since ⑦ does not show (R) false, while just undercuts (R)'s rebutting force, the representation of ⑦ is placed over the line connecting the rebuttal box with the representation of the core argument, and an X is placed on that line rather than over (R) (cf. fig.4).

The characterization of a counter-rebuttal countering U is similar to R, so we're not talking about it here. In short, there are five elements of premise, conclusion, modality, rebuttal and counter-rebuttal in Freeman's approach. Although Freeman's approach is based on the standard approach and the Toulmin model, it is different with them on some aspects.

3   Advantages of Freeman's Approach

Freeman clarifies Toulmin's dim understanding of modal qualifiers and reveals the function of modal qualifiers in an argument properly in his approach. As we know, "modal qualifier" is placed between "So" and "Claim" (cf. Fig.5) in the Toulmin model. Freeman thinks it is not proper, because a modal qualifier does not state the property of conclusion and is not a part of conclusion. In fact, whether we make a deductive or inductive reasoning, modal qualifiers, such as "necessarily", "probably", "presumably", all qualify the step from premises to conclusion. In other words, they indicate how strongly the premises support the conclusion. Hence, Freeman substitutes "modality" for "modal qualifier", let the modality box interrupt the arrow from premises to conclusion in his approach (cf. Fig.2 and Fig.3). Fisher comments that Freeman's views here "seem well-argued and eminently reasonable"[Fis92, p.198].
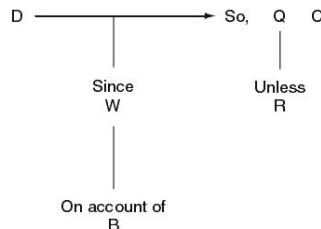

Figure 5

A further merit of Freeman's approach is that, it distinguishes two types of rebuttals, rebutting defeaters and undercutting defeaters, and introduces the element of counter-rebuttal in his diagram. This makes Freeman's approach be superior to the standard approach and the Toulmin model on the aspect of the dialectic tier of an argument. Firstly, it fills the gap of the standard approach which only can characterize the core tier while cannot characterize the dialectical tier of an argument. As we know, there are four basic types of argument structure in the standard approach, linked, convergent, serial and divergent structure (cf. Fig.6~Fig.9). They may be combined to represent a very complicated argument as Fig.10. But from the view of the standard approach, the components of an argument are either premises or conclusions. Hence, if we want to represent a rebuttal or a counter-rebuttal, we should regard them as premises. But it would lead to a serious problem as follows: should we count the relation between "unless R", a counter-rebuttal and premises of an argument as a linked or convergent structure? In fact, they cant be a linked or convergent structure in the sense of the standard approach. Secondly, as far as the dialectical tier of an argument, Freeman's approach makes up the deficiency of the Toulmin model which couldn't represent a counter-rebuttal of an argument. As we know, one difference between the Toulmin model and the standard approach is that the element of rebuttal is introduced in the Toulmin model. This shows Toulmin has already considered a challenger's question, but he neglects the element

of counter-rebuttal. Hence, the Toulmin model couldn't characterize ③ in case 1 and ⑦ in case 2 above. Freeman thinks whenever the arguer encounters a rebuttal by the challenger in the process of an argument, the arguer can give a counter-rebuttal in order to defend his claim further. Thus, counter-rebuttal becomes an element of Freemans approach. This enables Freeman's approach to reflect a practical argument elaborately.
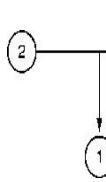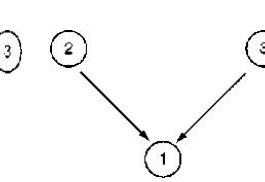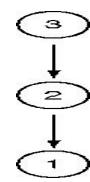
| Figure 6 | Figure 7 | Figure 8 | Figure 9 | Figure 10 |
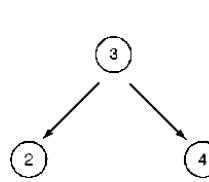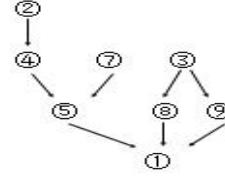
The third merit of Freeman's approach is that, it remedies the deficiency of the Toulmin model which can't represent a complicated argument consisting of multiple sub-arguments. This is mainly because Freeman rejects the threefold distinction of data/warrant/backing in the integration of the standard approach and the Toulmin model. As we know, the introduction of warrant is the main feature of the Toulmin model. But in Freeman's opinion, warrants "should not be included in diagrams of argument texts" [Fre11, p.59], otherwise, we have to analyze the similar arguments in different ways. For an example, the two similar arguments of "Socrates is human, all humans are mortal, therefore Socrates is mortal" and "All Greeks are human, all human are mortal, therefore All Greeks are mortal", according to the Toulmin model, may be characterized in the following different ways [cf. fig.11 and fig.12, Fre11, p.86].
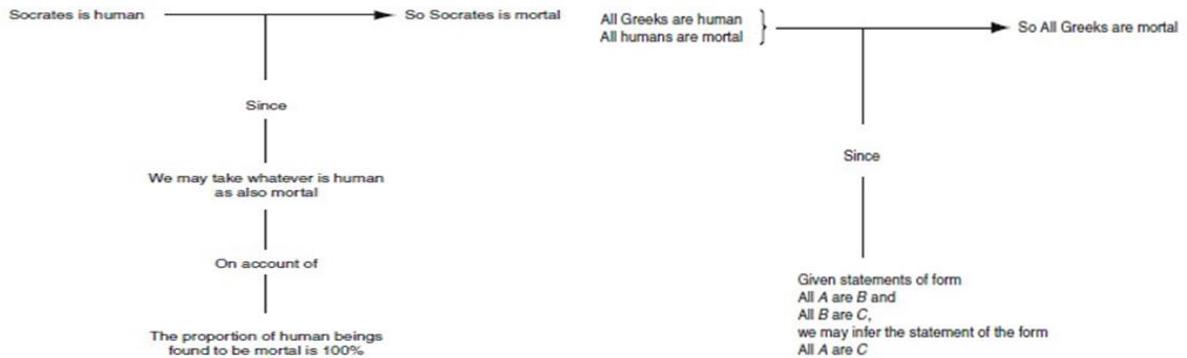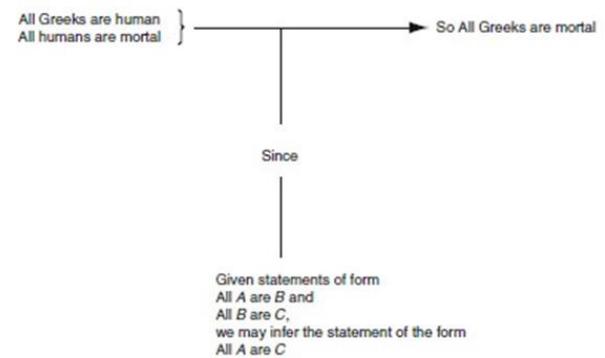

| Figure 11 | Figure 12 |

Freeman thinks it is artificial because the structural disparity isn't in the original texts and the reason why we should analyze them in different ways isn't sufficient. If we analyze both of them in the way of Fig.12, then we can reserve the structural similarity. However, "presenting a formal inference rule as the warrant seems distinctly artificial" [Fre11, p.87]. On the other hand, if we analyze both of them in the way of Fig.11, we have to face the problem that we can't decide easily which statement is data and which statement is warrant in many cases. Hence, Freeman concludes the category of warrant, indeed the threefold distinction, should be jettisoned in diagrams of argument texts.

Freeman reserves the twofold distinction of premise/conclusion, adopts the basic types of argument structure in the standard approach. Freeman's idea is, inheriting the standard approach in the core argument, choosing some elements of the Toulmin model (such as rebuttals, modal qualifiers) and adding the element of counter-rebuttal in the dialectic tier of an argument, then by the integration and modification to form an approach which can characterize a complicated argument consisting of multiple sub-arguments. Thus, the argument indicated by Fig.4, can be characterized by Freeman's approach. In contrast, the statements of an argument can be classified into data, warrant, backing and so on in the Toulmin model, but as far as a complicated argument that consists of multiple sub-arguments, many Toulmin sub-models are to be constructed and connected in order to show the macrostructure of the argument. But how to connect these Toulmin sub-models is either no solution or too complex to do at present. For an example, the characterization of fact-finding arguments in legal fields by the Toulmin model is very micro, such as fact-finding arguments according to expert opinion or according to witness

testimony [cf. Tou, Rie, Jan84, pp.303-304]. How to diagram the macrostructure of a fact-finding argument with complex legal evidence in a legal case is still difficult for the Toulmin model.

Another merit of Freeman's approach is related to the concept of "basic dialectic situation". As we know, Toulmin already reflects the dialectical tier of argument in his model. Freeman makes more progress in his approach in this respect. The reason lies in the introduction of the concept of "basic dialectic situation". The basic dialectic situations are the idealization of dialogical situations, where the arguer just makes a claim and responses the challenger's questions, while the challenger isn't interested in putting forward his points, he only tries to draw out the most cogent argument from the arguer. In Freeman's opinion, besides some opposition among its participants over some claim and interactive questioning for critically testing the claim, the argument process also should proceed in a regimented, rule-governed manner in a dialectic situation. Thus, the argument generated in a basic dialectical situation only is a linguistic reconstruction of what the argumentative process and procedure have generated.

Freeman regards the basic dialectical situation as a model for argument. He believes whether monologues or multi-agent complex argumentations can be reconstructed or reduced into a dialogue in a basic dialectical situation. Freeman stresses that "the paradigmatic arena for argumentation is the exchange, discussion debate between proponent and challenger over some issue [Fre11, p.40]." Hence, rebuttal and counter-rebuttal become two elements of his approach. Furthermore, the elements in Freeman's approach are motivated by dialectical questions. (1) The basic argument structures, which inherit from the standard approach, are all motivated by different dialectical questions in Freeman's approach.

Convergent structure: Can you give me an additional reason?

Linked structure: Why is that relevant to the claim you allege it to support?

Serial structure: Why should I accept that premise? [Fre11, P.16, P.14, P.13]

(2)The elements of modality, rebuttal and counter-rebuttal are also motivated by different dialectical questions.

Modality: How sure do your reasons make you of your claim?

　　　　　How strongly do your reasons support your claim?

Rebuttal: How can you be so sure?

　　　　　Why do your premises make you so sure?

Counter-rebuttal: Why do your premises make you so sure in light of rebuttal R? (Fre11, p.20, p.22)

In a word, the basic dialectic situation is an important theoretical foundation of Freemans approach. It shows the approach based on the framework of premise/conclusion also can reflect the multi-agent, dialogical and dynamic nature of an argument.

4　Further discussions

Freeman says that we may distinguish two types of rebuttals in Toulmin's sense [Fre11, p.20]. However, it may not in Toulmin's sense! In the Toulmin model, rebuttals mean "conditions of exception" and indicate "circumstances in which the general authority of the warrant would have to be set aside [Tou03, pp.93-94]." Hence, rebuttals in the Toulmin model bear on the applicability of warrant directly. In other words, if rebuttals are established in an argument, then warrant wouldn't be applied. At last, claim couldn't be concluded; if rebuttals aren't established, then warrant would be applied. Thus, based on data, conclusion could be drawn. This means rebuttals in general may not fall into the category of Toulmin's rebuttals. For example, rebuttals that can weaken claim, data or reasoning forms are different from Toulmin's rebuttals. Even rebuttals that can weaken warrantare not necessarily be part of Toulmin's rebuttals. For instance, the statement of "some birds aren't flying" is the denial of the sentence "all birds are flying", but it is outside of the range of Toulmin's rebuttals.

There are two differences of rebuttals between Freeman's approach and the Toulmin model. First, the object that rebuttals aim to counter is different. In Freemans approach, they are a claim or reasoning forms of an argument. In the Toulmin model, it is the applicability of warrant; secondly, the meaning of rebuttals is different. In the Toulmin model, rebuttals only mean "conditions of exception", while in Freeman's approach, rebuttals not only indicate "conditions of exception", but also other kinds of refutations, which can weaken the conclusion of an argument or call into question the reliability of an inference from premises to conclusion. Hence, Freeman's rebuttals are more general than Toulmin's rebuttals. As Fisher says, "Freeman wants to count any consideration which undercuts the strength of an argument as a rebuttal [Fis92, p.199]."

However, Fisher's opinion is somewhat problematic because there is another type of rebuttal that Freeman neglects. It's the type of rebuttal that will weaken the premises of an argument, which we may call "a weakening

defeater" ("W" for short). It is common whether in practical argument or in scientific argumentation. Why the type of rebuttal is neglected by Freeman? In a basic dialectic situation, can't the challenger question the premises by the arguer? Of course, he can. I think Freeman must have been affected by Pollock and Pinto who only speak of two types of rebuttals separately [Fre11, p.21], or else by Toulmin who only considers the applicability of warrant while does not speak of the reliability of data. Toulmin seems to think that there is no doubt about the acceptability of data in an argument, but he does not give a reasonable explanation.

The types of counter-rebuttal in Freeman's approach also should be discussed further. Since the function of counter-rebuttals is to neutralize rebuttals, while Freeman neglects the type of rebuttal that weakens the premises of an argument, he leaves the corresponding counter-rebuttal out. Hence, we should add a type of counter-rebuttal which aims to weaken the premises of an argument. This means there would be 3 types of rebuttal in an argument structure approach.

There are still some problems with rebuttal and counter-rebuttal in Freeman's diagrams. Freeman set U and R in one box attaching to the modality box. It is not good for identifying the types of rebuttal directly. In addition, Freeman considers two cases of counter-rebuttals: (1) counter-rebuttals which can neutralize rebuttals, but don't give additional evidence for a claim ;(2) counter-rebuttals which not only can neutralize rebuttals, but also give additional evidence for a claim. However, Freeman uses the same sign "=" to represent the two cases of counter-rebuttals in his diagram [Fre11, p.26, p.28]. This confuses (2) with (1), so couldn't reflect (2) correctly. For an example, "3=not-R" in above fig.3 is not accurate, because ③ gives more information than "Not-R". This means "3 not-R" in fact. Here, I suggest replacing "=" in (2) with "⇒" or ":". Thus, we can substitute "3=Not-R" for "3⇒ not-R" or "3: not-R" in above fig.3.

Moreover, Freeman uses a downward arrow between the counter-rebuttal box and the rebuttal box in order to represent the case of (2) above. Freeman says , ③ "support the conclusion by countering the rebuttal, rather than supporting the conclusion directly"[Fre11, p.25]. But the arrow between the counter-rebuttal box and the rebuttal box after all represents the supportive relation. Hence, Fisher comments, "I find this notation confusing, since the arrow here cannot be read as Freeman usually reads it, as'gives some support to'; indeed it means something very like the opposite!"[Fis92, p.200] Similarly, Slob says, "…there is no indication that the rebuttal is not operative. Rather, the diagram reads as if the counterrebuttal in fact supports the rebuttal!" [Slo06, p.177] Here, I suggest omitting the head of the arrow and only using the vertical line to represent the role of neutralizing. As far as the counter-rebuttal that only undercut U, we can still use a downward arrow pointing to"×"(cf. fig.6) which only show its support for the function of neutralizing.

Above all, for an argument including R, U, W and their counter-rebuttals, I think we can represent as following (cf. fig.13). ③④⑤ are all counter-rebuttals, which not only can neutralize rebuttals, but also give more information than them.
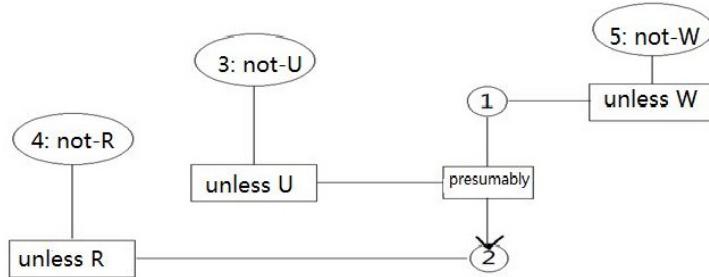

Figure 13

5   Concluding remarks

Freeman's approach makes up for some deficiencies of the standard approach and the Toulmin model respectively. It can characterize the argument in practice better and more precisely. Hence, it is more suitable as a general argument model, although there are still some problems with it.

References

[Fis92]   A. Fisher, Freeman's Dialectics and the Macrostructure of Argument. *Informal Logic* 14, 193-204, 1992.

[Fre11]   J.B. Freeman, *Argument Structure: Representation and Theory.* Dordrecht: Springer, 2011.

[Slo06]   W.H. Slob, The voice of the other: a dialogico-rhetorical understanding of opponent and of Toulmin's rebuttal, in: Hitchcock D. and Verheij B. (*Eds.*) *Argument Structure: Representation and Theory.* Dordrecht: Springer, 2006.

[Tou03]   S.E. Toulmin, *The Uses of Argument.* (*updated edition*) Cambridge: Cambridge University Press, 2003.

[Tou, Rie, Jan84] S. Toulmin, R. Rieke, A. Janik, *An Introduction to Reasoning (2nd edition.)*   New York: Macmillan, 1984.