The Concept of an Argument

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1. Introduction

The concept of an argument for which I propose an analysis is the reason-giving sense in which one speaks, for example, about Daniel Kahneman’s argument (2011, pp. 334-335) that the tendency of most people to be risk averse about gains but risk-seeking about losses is irrational. This sense of the word ‘argument’ should be sharply distinguished from the disputational sense in which one speaks about two people having an argument, discussed in Chapter 8. That these are two different senses is clear from the fact that languages other than English use two different words for the two senses. For example, in French, ‘to argue’ in the sense of quarrelling is ‘disputer’, whereas ‘to argue’ in the sense of giving reasons for or against is ‘argumenter’.

We could give a rough lexical definition of the word ‘argument’ in this sense by quoting the definition by the Hellenistic Stoics of an argument as “a system composed of premisses and a conclusion” (systêma ek lêmmatôn kai epiphoras, Diogenes Laertius 1925/ca. 210-240, 7.45). Aside from its idiosyncratic failure to recognize one-premiss arguments, this definition is an acceptable starting point for a conceptual analysis. That analysis would need to answer a number of questions raised by the lexical definition. What is a premiss? What is a conclusion? What sorts of entities can function as a pre-

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1 This chapter uses material from “The concept of an argument” (Hitchcock 2017, pp. 518-529; © Springer International Publishing AG 2017), with the kind permission of Springer.

2 I use the spelling ‘premiss’ and ‘premises’ rather than ‘premise’ and ‘premises’, following the usage of such prominent logicians as Charles Sanders Peirce and Bertrand Russell. The spelling ‘premiss’ is peculiar to the original logical sense of the word, whereas the plural ‘premises’ can be used also for houses, buildings and land specified in a deed.
miss? What sorts can function as a conclusion? How do premisses and a conclusion form a unified system? Does such a system have an intrinsic function or purpose, or on the contrary can it be used for various purposes? What about complex arguments?

We should recognize that arguments are not necessarily the content or product of argumentation—that is, of communications in which arguments are exchanged. One can consider an argument for a certain position or policy even if nobody has ever used that argument. One can imagine crazy arguments that no sane person would ever put forward. One can apply the term ‘argument’ to unified stretches of solo reasoning where some conclusion is reached on the basis of reasons, as when one considers mentally various aspects of a situation and then describes “the argument that finally convinced me”. Indeed, it seems consistent with our ordinary use of the term ‘argument’ in its reason-giving sense to say that there are arguments that nobody has ever thought of and nobody ever will. The most we can demand is that an argument must be thinkable and expressible. Arguments as a class thus have no common function or purpose. They are not necessarily used to justify or establish something. Nor are they necessarily used to persuade anybody.

Thus, critical thinking textbooks that define ‘argument’ as “rational persuasion—an attempt to influence another or others using reasons” are actually describing one use of arguments, not the concept itself.

2. Simple arguments

Begin by considering simple arguments, in the sense of single-inference systems that consist of one or more premisses and one conclusion. Of what sorts of entities are such arguments composed? That is, what kind of object can function as a premiss, and what kind can function as a conclusion? A common answer is that these components are propositions, in the sense of postulated timeless and non-located entities that can be expressed linguistically (or in some other way) and that can be objects of belief or knowledge. Propositions however are not the right candidates to be premisses or conclusions.

As to premisses, consider the following two arguments:

(1) Suppose that there is life on other planets in the universe. Then it makes sense to look for it.

(2) There is life on other planets in the universe. So it makes sense to look for it.

These arguments have the same conclusion, but different premisses. But both premisses express the same proposition, that there is life on other planets in the universe. The difference is in the illocutionary act performed by some-
one who utters the premiss in standard contexts. In uttering argument (1), the author hypothesizes the propositional content of the premiss. In uttering argument (2), on the other hand, the author asserts the proposition. The difference makes a difference to the evaluation of the two arguments: argument (2) requires a stricter condition of premiss adequacy than argument (1).

If arguments need not be expressed but their premisses are illocutionary acts, the premisses must be illocutionary act-types rather than illocutionary act-tokens. Sometimes the type may have no actual tokens. Someone can use the same argument on different occasions, and different people can use the same argument. A premiss can be a supposition or an assertive or any other member of the class of illocutionary acts that Searle (1976) grouped under the label ‘representatives’, and which he defined (p. 10) as acts whose point is to commit the speaker, perhaps hypothetically or guardedly, to something’s being the case. It cannot be any other kind of illocutionary act, as we can see by noting the peculiarity of putting examples (taken from Hitchcock 2006, pp. 103-104) of the other kinds of illocutionary acts in premissary position before an inferential ‘therefore’:

(3) * What time is it? Therefore, you must go home.  
(4) ? I promise to pick up some milk on the way home. Therefore, you don’t need to get it.  
(5) * Congratulations on your anniversary. Therefore, you are married.  
(6) * I hereby sentence you to two years less a day. Therefore, the guards will now take you to prison.

In standard contexts, the utterances in the premissary position are respectively (3) a directive (in particular, a request for information), (4) a commissive (in particular, a promise), (5) an expressive (in particular, a congratulation), and (6) a declarative (in particular, a judicial verdict). The inappropriateness of these pairings reveals the general inability of illocutionary acts other than representatives to function as premisses. The premiss in (4) is a borderline case, because a promise can be taken to imply a prediction (that the promise will be kept) and a prediction is a kind of assertion. It is the implicit prediction rather than the commitment that makes it possible to construe example (4) as an argument.

Among conclusions, we find a greater variety of illocutionary acts than among premisses. We have already seen two examples ((1) and (2) above) in which the conclusion is a representative. Conclusions (and premisses too) can be hedged by such qualifiers as ‘probably’, ‘presumably’, ‘possibly’, and the like, which are best given a speech-act interpretation. Thus a wide range of

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3 As Toulmin (1958, pp. 47-62) and Ennis (2006, pp. 145-164) have argued.
representatives can be conclusions of arguments. But the other main kinds of illocutionary acts can also be conclusions, as we can see from the following examples (taken from Hitchcock 2006, p. 105):

(7) There is a forecast of thundershowers, so let’s cancel the picnic.
(8) I know how difficult it will be for you to get the milk, so I promise you that I will pick it up on the way home.
(9) My conduct was inexcusable, so I apologize most sincerely.
(10) The evidence establishes beyond a reasonable doubt that you committed the crime of which you are accused, so I hereby find you guilty as charged.

When these arguments are expressed in standard contexts, their conclusions are respectively (7) a directive, (8) a commissive, (9) an expressive, and (10) a declarative. Thus the conclusion of an argument can be an illocutionary act type of any kind: a representative, a directive, a commissive, an expressive, or a declarative.

A reason can be advanced as a reason against some claim as well as a reason for it. Consider the following example:

(11) Proponent: We need a concerted global reduction of greenhouse gas emissions to mitigate future climate disruption.
Opponent: A cost-benefit analysis needs to be done first to determine whether it makes more sense to adapt to future climate disruption rather than to mitigate it.

Here the opponent’s reason is put forward as a reason against the proponent’s claim. The exchange has an inferential structure that is quite parallel to that in which a reason is put forward in support of a claim. In general, objections and criticisms seem to have just the same inferential structure as supports. In other words, there can be arguments against something as well as arguments for something. Consider an example. In the 11th century the monk Gaunilon objected to Anselm’s ontological argument for the existence of God that by the same reasoning one could prove the existence of a perfect island (Anselm 1903/1077-78). Gaunilon’s objection is an argument against the cogency of Anselm’s argument. It would involve needless and misleading subtlety to recast his objection as an argument in support of some claim. It is better to follow a number of authors who have recognized that there can be arguments against as well as arguments for (Johnson 2000; Rahwan et al. 2009; Freeman 2010; Wohlapp 2014/2008; Blair this volume, Ch. 8; Davies et al. this volume, Ch. 10; Goddu this volume, Ch. 16).
In fact, the same reason can be adduced for a claim by one person and against the same claim by another person. For example, some people use the principle of self-determination as a reason for legalizing voluntary euthanasia, whereas others use it as a reason against legalizing voluntary euthanasia (Wohlrapp 2014/2008, pp. 264-265). Each group advances an argument, and the two arguments clearly differ from each other. Thus it makes sense to add to the conception of an argument as a premiss-conclusion or claim-reason complex a third component indicating whether the reasons are to count for or against the claim. Further, to accommodate the existence of arguments against as well as arguments for, I shall hereafter use the term ‘target’ rather than ‘conclusion’ or ‘claim’ for the part of an argument to which its reasons are directed.

We are now in a position to say what a simple argument is:

A simple argument consists of one or more of the types of expression that can function as reasons, a “target” (any type of expression), and an indicator of whether the reasons count for or against the target.

There may be no tokens of the component illocutionary act types. In other words, simple arguments as just defined are abstract structures that are not necessarily actually realized. We need impose no further restrictions on what can count as a simple argument, thus widening the class of arguments to the craziest combinations that one can imagine.

What gives such a set unity as a single argument is that someone puts forward or entertains—that is, adduces—its reasons as support for or opposition to its target. In doing so, the person ordinarily claims or thinks that the reasons, if true or otherwise acceptable, provide grounds for accepting or rejecting the target (to an extent indicated). A common motivation for adducing the reasons as counting for or against the target is the belief that the person addressed by, or considering, the argument did not previously think that the reasons provide the claimed support for, or opposition to, the target.

4 Wohlrapp argues that if voluntary euthanasia becomes legal on the basis that self-determination requires it, those whose condition might qualify them for approval to be euthanized but who want merely to live out the remainder of their natural lives are pressured by appeals to self-determination to submit to euthanasia. The supposedly liberating value becomes coercive.

5 More precisely: A simple argument is a triple whose first member is a set of one or more representative illocutionary act types (called ‘the reasons’), whose third member (called ‘the target’) is an illocutionary act type of any kind, and whose second member is an indicator of whether the reasons are to be taken as counting for or against the target.
Goddu (2018) has objected to this way of securing the unity of an actualized argument. He contends that a person can entertain an argument mentally without supposing that its reasons support (or oppose) its target. One can for example wonder whether the reasons in an argument one is considering actually support the target. This is true, but in such a case the person considering the argument is viewing it as an argument that someone might or could adduce, i.e., as a hypothetical argument, a possible complex of reasons, indicator, and target.

Someone who adduces reasons as counting for or against a target must be the author of either the reasons or the target. But such an adducer need not be the author of both. One can draw a conclusion from something someone else has said, in which case the person who draws the conclusion adduces what the other person said as supporting the conclusion drawn. One can provide reasons against someone else’s claim, in which case the person who provides the reasons adduces them as opposing the other person’s claim. In any situation where an argument is expressed, the adducer is the person who articulates the inferential claim conveyed by the (possibly implicit) indicator that points to the argument’s target.

3. Complex arguments

So far this conception of an argument accommodates only simple arguments, i.e., single-inference arguments with a set of one or more reasons, a target, and an indication of whether the reasons count for or against the target. We need to allow as well for complex arguments that involve a chain of reasoning or embedded suppositional reasoning.

3.1 Chain of reasoning arguments

In chained arguments, a reason of one argument (which I will call ‘the superordinate argument’) is the target of another (which I will call ‘the subordinate argument’ or ‘sub-argument’). Since only representatives can be reasons, the target of any subordinate argument must be a representative. There is no limit to the depth of chaining. The ultimate target in a chain of reasoning is supported or opposed by one or more reasons, each of which may be the target of one or more reasons in a sub-argument, each of which in turn may be the target of one or more reasons in a sub-sub-argument, and so on indefinitely. In an expressed sub-argument at any level, the reasons must be adduced in support of the target. Otherwise the target would have to be the complement of the reason in the superordinate argument to which it was linked. But it is hard to define the complement of a representative illocutionary act. What, for example, is the complement of a hedged assertion of the form ‘probably p’?
Representatives incompatible with ‘probably $p$’ include ‘definitely $p$’, ‘probably $p’$, and ‘definitely $p’$, where $p'$ is a contradictory of $p$. An argument against some target that was used to support a reason of the form ‘probably $p$’ would therefore need an unwieldy disjunction as its target, for which it would be difficult if not impossible to formulate a set of reasons that successfully opposed each disjunct simultaneously. Since subordinate simple arguments in an expressed complex argument make sense only if their reasons are presented in support of their target, it makes sense to limit unexpressed subordinate simple arguments in the same way.

The natural way to accommodate the indefinite complexity of chained arguments is to use an inductive clause\(^6\) that can be applied again and again so as to build up arguments of increasing complexity. The process is analogous to that by which one defines what a person’s ancestor is by saying that a parent of a person is an ancestor of that person and that a parent of any ancestor of that person is also an ancestor of that person. This definition allows one to construct the class of a person’s ancestors, starting with the person’s parents, then adding the grandparents, then the great-grandparents, and so on without end.

In defining inductively what an argument is, one needs to take some care in constructing the inductive clause for chained arguments. The most sensible way to do so seems to be to add one at a time a simple argument for a reason in an already constructed argument. One can conceive of a simple argument, which is a triple, as a unit set, a set with one member. One can combine it with a simple argument whose target is a reason in the first argument by taking the union of the two sets, i.e., the set whose members are all the triples that are members of either set. And then one can combine this set of two triples with a third simple argument whose target is a reason in one of the first two triples. And so on. Let us call a reason in any triple in a set of such triples a ‘reason in the argument’. The inductive clause might then read as follows:

*If in an argument something is a reason but is not a target, then the union of that argument with a simple argument whose target is that reason and whose indicator is positive is also an argument.*

As with the definition of simple arguments, this clause allows that the most fantastic and crazy combinations are arguments in the abstract sense. The

\(^6\) In the first edition of this book, I called this clause a “recursion clause”. The phrase “inductive clause” is more accurate, since it applies to the building up of a domain of objects step by step. Recursive definitions, strictly speaking, define terms that apply to a domain that has already been constructed; an example is the recursive definition of the plus symbol ‘+’ as applied to the previously constructed domain of natural numbers.
condition that the reason is not already a target is meant to exclude from being a single argument structures in which a reason is the target of more than one simple argument. Just as multiple arguments for or against the same ultimate target do not constitute a single argument, so too multiple arguments for the same intermediate target cannot be components of a single complex argument.

3.2 Embedded suppositional reasoning

Chaining is one of two ways to construct complex arguments. The other is embedding, where suppositional reasoning is used to support or oppose a target, with one or more of its suppositions being “discharged” in the process. (E.g., “Suppose the U.S. did not use the atomic bomb in WWII. Had that been the case, then probably…” or “Suppose we take on the debt of a big mortgage and buy a house. If we were to do that, then …”). Any line of suppositional reasoning is an argument according to the inductive definition of argument developed so far. To allow for embedding one or more such lines of suppositional reasoning, we need to allow that a line of suppositional reasoning can count as something like a reason. One way to do so is to take the line of suppositional reasoning as an implicit assertion that the ultimate target of the line of suppositional reasoning follows from its ultimate supposition in combination with any other ultimate reasons used in derivation of the ultimate target. (The assertion may be qualified, if either an inference or an ultimate reason in the suppositional reasoning is qualified.).

When the suppositional reasoning is embedded in a larger context, the target external to this line of reasoning is a representative, which in the case of nested suppositional reasoning may itself have a suppositional status. The inductive clause allowing embedding of suppositional reasoning thus needs to allow for the dual complexity of chains of reasoning from suppositions and nesting of suppositional reasoning inside suppositional reasoning. It also needs to allow that a line of suppositional reasoning can be used in opposition to a target as well in support of one. If the target of a line of suppositional reasoning is a reason in a sub-argument, however, then the expression of such a complex argument makes sense only if the suppositional reasoning is adduced in support of the target, for the same reason that an expressed chained simple sub-argument makes sense only if its reasons are adduced in support of its target: an opposed target would have to be too complex to count as the com-

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7 It won’t do, however, to count it as a reason in the same sense as that in which a representative is a reason. Otherwise the inductive clause for chaining would allow for arguments that are subordinate to a line of suppositional reasoning, which makes no sense.
plement of the reason in the superordinate argument that is being indirectly supported by opposition to the target of the suppositional reasoning.

In general, too, it makes sense to use a line of suppositional reasoning only if its internal ultimate target is argued for rather than against, since all the recognized legitimate ways of discharging a supposition assume that the supposition is used to support the ultimate target. Similar restrictions to arguments with a positive indicator are therefore appropriate for abstract arguments that need not be expressed. It seems an unnecessary further complication, however, to incorporate in a clause allowing embedding the specific ways in which a supposition in a piece of suppositional reasoning may legitimately be discharged. The abstract definition of an argument will thus allow for embedding pieces of suppositional reasoning in totally illegitimate ways.

The following is a possible inductive clause allowing embedding:

A triple is an argument if its first member is a set whose members include at least one argument with a suppositional ultimate reason, whose third member (the target) is an illocutionary act of any kind, and whose second member is an indicator of whether the members of the set count for or against the target.

As is usual with inductive definitions, there needs to be a final closure clause to the effect that nothing is an argument unless it is an argument

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8 One way of legitimately discharging a supposition is conditional proof, in which one derives a conditional from a line of suppositional reasoning that starts from the supposition of the conditional’s antecedent and ends with the conditional’s consequent. A variant form of conditional proof starts from the supposition of a contradictory of a conditional’s consequent and ends with a contradictory of its antecedent. Another way to legitimately discharge a supposition is reductio ad absurdum, in which one uses a line of reasoning from a supposition to some absurdity as a reason for denying the supposed proposition. Another is argument by cases, in which one considers an allegedly exhaustive set of possible cases, deriving the same ultimate target from the supposition of each case, and then drawing this ultimate target as a conclusion. Another is to argue for a proposition in a proof by mathematical induction by supposing at the inductive step that the proposition holds for the number n (or for every number up to and including n) and deriving from this supposition that then it also holds for the number n + 1. Another is universal generalization, in which one derives a universal generalization about a kind by reasoning from the supposition that some individual is of that kind to the conclusion that the generalization holds for this individual, without using any other assumption about the individual.
according to the base clause and the inductive clauses.\(^9\) One can illustrate and test the resulting definition by using its clauses to construct complex arguments as they appear in argumentative texts.

As with the abstract concept of a single argument, we need a basis for the unity of an expressed complex argument. An expressed chaining of two arguments is a complex illocutionary act of adducing the resulting chain of reasoning as supporting or opposing the ultimate target of the superordinate argument in the chain (i.e. the argument that has a reason which the subordinate simple argument targets). The essence of adducing in this case is that the utterance of the adducer counts as a claim that in each link of the chain the reasons if true or otherwise acceptable would provide epistemic support for the target or as a claim that the reasons if true or otherwise acceptable would provide epistemic opposition to the target. An embedding of an argument is a complex act of adducing the embedded suppositional reasoning, possibly along with one or more reasons, as support for or opposition to the target of the argument in which the suppositional reasoning is embedded. The essence of adducing in this case is that the utterance of the adducer counts as a claim that the suppositional reasoning would if the additional reasons (if any) were true or otherwise acceptable provide epistemic support for the target or as a claim that the suppositional reasoning would if the additional reasons (if any) were true or otherwise acceptable provide epistemic opposition to the target. The content conditions, preparatory conditions and sincerity conditions for these more complex acts of adducing are a function of the content, preparatory and sincerity conditions for the simple acts of adducing from which they are constituted.

As with simple expressed arguments, we can accommodate merely entertained complex arguments by a hypothetically possible act of adducing. If one is entertaining mentally a complex abstract argument as a whole that could be used to adduce the reasons as supporting or opposing its ultimate target, then one is considering an argument.

\(^9\) One can express the inductive definition in the customary form of a statement in which there appears in the first part the term to be defined, in the last part the defining part of the definition, and in between these two parts an indicator (such as ‘means’, ‘=df’, ‘if and only if’, or ‘is a’) that the defining part states the meaning of the defined term. For example, one could say that something is an argument if and only if it belongs to every set that includes everything that satisfies the base clause, as well as everything that can be constructed from its members using the inductive clauses for chaining and embedding.
4. Summary

The conception of an argument that I propose has the following distinctive features:

- It takes the ultimate constituents of arguments to be illocutionary act types rather than propositions, statements, utterances, and the like.
- It allows for arguments against something as well as arguments for something.
- It allows the reasons in an argument to be any kind of representative illocutionary act.
- It allows arguments to have as their target any kind of illocutionary act.
- It distinguishes arguments as abstract structures that may never be expressed or even thought of from expressed arguments.
- It locates the unity of an expressed or mentally entertained argument in a second-order illocutionary act of adducing, which may be actual or merely hypothetically entertained.
- It allows for a variety of uses of arguments, since neither the abstract conception of an argument nor the act of adducing that constitutes a complex of illocutionary act types as a single argument includes any conception of the purpose or function of an argument.
- It provides explicitly for complex arguments to be constructed inductively by steps of chaining and embedding.

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