I fully agree with Goddu that Hitchcock’s definition of ‘argument’ needs refining. However, unlike Goddu, I believe we must be concerned with whether the definition or some refinement of it is adequate. I find a significant flaw in the definition right in Clause 1, where I believe Hitchcock has put together items which cannot, or at least should not, be put together. Addressing these issues has distinct implications for how Hitchcock’s definition should be refined and revised and for how the problems and puzzles Goddu has raised may be answered.

The problem I see in Clause 1 Goddu sees as an immediate clash between Outcome 1—Arguments are in the ontological category of acts—and the set-theoretic construal of arguments, since here “The entities defined as arguments ... are sets, not acts” (p. 2). Besides the clash, I find this combination of set-theoretic talk and speech act talk problematic for a further reason. As is well known, and as Wenzel (1979) has pointed out in particular, we may distinguish argument as process from argument as product. Wenzel characterizes argument in the process sense as referring “to the phenomena of one or more social actors addressing symbolic appeals to others in an effort to win adherence to theses” (1979, 84). Arguments as products involve laying out certain products of the phenomena or discourse of argument in the process sense “in terms of premises and conclusions” or ‘evidence and claim,’ by which someone chooses to represent meanings abstracted from the ongoing processes of communication” (1979, 84). By indicating that set-theoretic triples of sets of speech acts, logical indicators, and a speech act are arguments, Hitchcock’s base clause seems to conflate the process and product sense of argument. This is unfortunate, since if we keep these senses distinct I believe we can avoid many of Goddu’s criticisms and answer many of his questions.

Consider for simplicity an argument as process where just one social actor is addressing symbolic appeals to others. Clearly the phenomena involved here are speech acts. Clearly also these speech acts are concrete events. Clearly further should we want to define ‘argument’ in the process sense, we need to refer somehow to an argument’s involving a plurality of speech acts

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1 A technical note: Since ordered sequences are sets, I cannot see the motivation for Hitchcock’s construing arguments as singletons of ordered triples. If anything, the set braces should be dropped, and ‘set’ changed to ‘sequence.’

2 Wenzel also identifies arguments as procedure. We need not be concerned with this category here.
without construing the argument as a set or other abstract object. Clearly yet again, the argument is a complex speech act and thus arguments as process are in the category of acts. Our quest for a definition raises this question: How do concrete speech acts unite to form concrete complex speech acts, in particular speech acts which are arguments?

Van Eemeren and Grootendorst specifically address this problem in (1984) (See pp. 19-35, 39-46.), where they hold that argumentation is a complex speech act and seek to extend Searle’s concept of speech act to make this intelligible. We must mention a terminological point. In contrast to North American writers, van Eemeren and Grootendorst use ‘argumentation’ to indicate the premises of an argument put forward to support or refute some conclusion, rather than the entire premise-conclusion complex. In what follows, we shall endeavor to integrate what they say to North American usage. The statements constituting the premises—the argumentation—are assertives of some sort, but they also “are part of a greater complex of statements, ... a constellation, ... which forms the illocution of argumentation” (1984, p. 32). Although van Eemeren and Grootendorst do not define ‘constellation,’ it is clear that a constellation is more than a collection of statements. It is certainly not a set or other abstract object. Rather, statements which express illocutionary acts may bond together to constitute some further illocutionary act, of a different kind that its components. This complex act constitutes an argumentation when it is “designed to justify or refute an expressed opinion” (1984, p. 18). Van Eemeren and Grootendorst are explicit that without this expressed opinion, no constellation of speech acts can constitute an argumentation. Clearly, the component speech acts are not floating around in space and bonding together through some mechanism of chemical attraction. Rather they are bonded together by some speaker with an argumentative purpose and executing this purpose constitutes the complex an argumentation. Surely, if an argumentation counts as a constellation, then the argumentation together with the expressed opinion (itself a speech act) the speaker has designed the argumentation to justify or refute may bond together to form a larger constellation yet, an argument in the North American sense. Since speech act bonding must be performed by a single agent speaker who is performing a speech act through the larger complex act, it makes no sense to speak of two speech acts performed by different persons bonding together to form a complex act. We may call the constellation a text. Van Eemeren and Grootendorst distinguish between illocutionary force at the sentence level and at the textual level (1984, 34). The point is that the text is an illocutionary act with its own illocutionary force in addition to the illocutionary force of any of its components, and that texts are communicative units of speakers in addition to the sentences incorporated into the text.

Furthermore, to count as an argumentation, an utterance must satisfy the constitutive conditions of an argumentation, which in turn require that the speaker must satisfy certain conditions. Van Eemeren and Grootendorst spell out what this involves, where $S_1, S_2, ..., S_n$ are the elements of the argumentation, $O$ the expressed opinion, $S$ the speaker, $L$ the listener:

The constellation of statements $S_1, S_2, (..., S_n)$ consists of assertives in which propositions are expressed.

Advancing the constellation of statements $S_1, S_2, (..., S_n)$ counts as an attempt by $S$ to justify [refute] $O$ to $L$’s satisfaction.

(1984, p. 43) Van Eemeren and Grootendorst leave at the intuitive level what counting as an attempt to justify or refute means. Surely, however, there are many instances where a listener can recognize when reasons, singly or in combination, are being put forward to justify or refute a claim. Our discussion now has shown this point: If we focus on the process concept of argument,
we can define a concept (at least the base clause of a recursive definition) in which arguments are in the ontological category of acts and which avoids the problems Hitchcock’s use of set-theoretic language involves in the base clause of his definition.

What van Eemeren and Grootendorst say speaks to Goddu’s worries over the illation relation or I-relation, which he presents at the end of his paper. Goddu first asks, “Can an articulation of the I-relation be found that clearly allows Sue’s redundant utterance [i.e. “Grass is green, so something is green and since something is green, something is colored”] to count as a single complex argument, but Oliver’s [1806] and Bill’s [2006] utterances to not count as a single complex argument?” (p. 12) Given what van Eemeren and Grootendorst have said, Oliver’s and Bill’s utterances cannot form a single argument because they cannot form a single text, for the simple reason that speech acts cannot bond together to form a text unless they are the speech acts of a single speaker.3 A slight extension of what van Eemeren and Grootendorst have said, totally in the spirit of their discussion, allows Sue’s redundant utterance to count as an argument. If Sue can bond together certain of her speech acts to form a text, why cannot she bond together certain of her texts to form a larger text, in particular an argument text? Furthermore, what I think may be especially important for Goddu’s purposes, why cannot this putting together count as an argument text when Sue’s intention is to justify the conclusion of her second argument ultimately by offering the premise of her first argument? So as long as we take the North American approach allowing not just the premises or argumentation to count as a text but premise-conclusion complexes, the answer to Goddu’s first question is “You bet.”

Goddu next asks “What exactly are the relata of the I-relation?” (p. 12) Van Eemeren and Grootendorst have already spoken to this question. The I-relation holds between a text on the one hand and a speech act. This is very close to what Goddu says he is assuming, although a text, being one communicative act, is more unified than a mere concatenation of speech acts.

Again, to Goddu’s question of “What exactly is it to offer something as a reason for inferring something else?” (p. 12), van Eemeren and Grootendorst have spoken directly. It is for a speaker to offer a constellation of proposition expressing assertives as an attempt to justify or refute an opinion to the satisfaction of some listener. Given this understanding, neither can a non-intentional computer offer an argument, nor can a human offer an argument unintentionally. Since the I-relation holds between a text and a speech act, non-textual objects, in particular non-verbal actions cannot enter into the I-relation. However, this in no way entails that an extended or derivative sense of the I-relation might be developed in which such objects might enter. The burden of proof is on those who hold that such a wider or derivative relation should be defined. Perhaps such a burden has already been taken up by those who defend the legitimacy of visual argument.

Finally, Goddu asks, “Is the I-relation more than just the argument-making relation?” (p. 12) If to make an argument is simply to form certain sequences, van Eemeren and Grootendorst show the I-relation is clearly something more. The I-relation involves an attempt at justification or refutation. This clearly goes beyond constructing some sequence. In keeping with Searle’s speech act theory, the dependence of arguments on the I-relation raises a host of critical questions which simply would not apply to mere sequences. (In addition to the conditions which we have

3 It is possible that the speaker is a committee. But the joint communique of a committee is still the speech act of a single communicative agent.
already mentioned, van Eemeren and Grootendorst discuss preparatory and sincerity conditions, which are beyond our scope in this commentary. See (1984), pp. 44-46.)

Let’s turn our attention now to arguments as products. Instead of Wenzel’s speaking of abstracted meanings, let us say that in an argument as product, propositions are laid out as premises and conclusions. This laying out may be accomplished by declarative sentences constituting a text along with some explicit or implicit indicator, which functions as a metalinguistic statement indicating that certain propositions are being put forward to support others. Given this understanding, it makes perfect sense to think of simple or basic arguments as products as ordered triples whose first member is either a set of propositions (premises) or a simple proposition (conclusion), whose second member is a proposition indicating the illation relation between premises and conclusion, and whose third member is either a proposition or a set of propositions. Although these structures parallel those in the base clause of Hitchcock’s definition, on categorial grounds propositions are not speech acts, which are concrete. Propositions are abstract objects of some sort, which we need not investigate further here.

Hitchcock is trying to define a concept of argument appropriate for informal logic. Wenzel has indicated a very strong reason why Hitchcock should want to understand ‘argument’ in this product sense. The discipline of logic addresses argumentation this way when assessing arguments for soundness. (See 1979, 85.) Let us then, rewrite Hitchcock’s Clause 1 to indicate unambiguously that we are defining argument as product:

1. Any sequence of the form \(<c, \because, P>\) or \(<P, \therefore, c>\) is an argument (product sense) where the elements of \(P \cup \{c\}\) are propositions and ‘\(\because\)’, ‘\(\therefore\)’, indicate the higher-order propositions asserting that the premises support the conclusion.

Since propositions may be expressed by speech acts, we may propose a refinement of Clause 1 even more in line with Hitchcock’s original wording:

1. Any sequence of the form \(<c, \because, P>\) or \(<P, \therefore, c>\) is an argument (product sense) where the elements of \(P\) are propositions expressed by assertives, \(c\) is a proposition expressed by any type of speech act, ‘\(\because\)’ is a proposition expressed by a premise indicator, that the premises support the conclusion, while ‘\(\therefore\)’ is a proposition expressed by the conclusion indicator, indicating that the premises support the conclusion.

Would this amendment of the base clause be subject to the criticisms Goddu brings against Hitchcock’s Clause 1? First, as already indicated, Outcome 1 is rejected as an outcome for the proposed definition. Hence inconsistencies with that outcome would not pose a problem for this definition. This does not mean, however, that Hitchcock cannot embrace Outcome 1 for a different sense of argument. As Goddu indicates at the beginning of his paper, Hitchcock is concerned to distinguish a monological from a dialogical sense of argument. As our discussion of van Eemeren and Grootendorst shows, the monological or reason-giving sense involves endorsing a point of view and giving reasons for it in a complex speech act. In the dialogical or disputational sense, two arguers—or a group of one or more persons playing two distinct argumentative roles—endorse divergent opinions and attempt “to get the others to accept their point of view, not necessarily by offering reasons in support of it” (Hitchcock, 2007, p. 2). It is clear, however, that arguments in both senses are arguments as process, although with disputational arguments, the process may be carried out badly. Hitchcock then needs to revise his statement that “informal logic studies arguments in the reason-giving sense” (2007, p. 2). Rather it studies products of such arguments, and perhaps could be said to study reason-giving arguments in a derivative sense only by means of such products. Hence, by contrast with Goddu,
I am recommending that Hitchcock’s base clause define arguments (as products) literally set-theoretically, through the triples in (1) or (1′), but should he find the reason giving process sense of argument important to highlight also, he should define it as a further sense of argument. Notice that our revised Clause 1 completely avoids an additional problem Goddu raises, namely whether the premise or conclusion indicators in the sequence, not being themselves acts, rule out the sequence as “shorthand for the claim-reason complex” (2007, 2). None of the elements forming our triples are ultimately built up from acts but propositions.

Our amended base clause satisfies Outcome 2. Any message which fails to indicate, at least implicitly, that one statement is supported by others, is no argument (as product), where a message indicating such a relation is an argument, no matter how egregious the reasoning. But one element in the triple is the support proposition expressed by a logical indicator. Notice that since we are dealing with propositions, and thus with abstract objects, we avoid the problem Goddu raises in connection with taking sequences of concatenations of acts, widely separated in time, as arguments. Propositions are not temporally located. Notice also that by understanding arguments as products as sequences ultimately of propositions, we avoid another problem Goddu raises, when he says that “the words, ‘since’, ‘therefore’, ‘thus’, cannot do [the work of premising each reason and concluding each conclusion] on their own” (p. 3). This is true, syntactically, but the elements of the triple, as we understand them, are semantic.

We see no conflict between our revised Clause 1 and Outcome 3 that “Claim-reason complexes’ that are merely entertained in thought and merely potential discoursal claim-reason complexes never uttered by anyone or even mentally entertained by anyone should count as arguments” (p. 4). If anything, our revised version makes it possible to see why this is the case. If one sought to argue for a claim, one might entertain in thought many candidate reasons for that claim, finally settling on some to serve as premises. But what is entertained? Even if one imagines that these reasons are asserted, the propositions they convey determine whether they are appropriate premises, and these abstract objects comprise arguments as products. Likewise, what is a claim-reason complex never uttered or even entertained but an abstract object, properly in the category of arguments as products (even if such products are seeking producers)? Thus we see that our revised Clause 1 avoids the problems Goddu brings against Hitchcock’s Clause 1.

Of the remaining clauses in the definition, I shall comment here only on Clauses 3 and 5. Clause 3 indicates one way arguments may be composed: When the conclusion of one is a premise in another, they may be joined over this common component to produce an argument with serial structure. Goddu argues that this clause needs to be modified, since it permits violation of Outcome 4: “Two arguments that diverge to separate conclusions or converge to the same conclusion do not form a complex argument” (p. 7). However, Clause 3, as it stands, does not imply Outcome 4. To say that two arguments may be put together under certain circumstances says nothing about how arguments may not be put together. Furthermore, although “Hitchcock is not interested in allowing two simple arguments that share a premise or share a conclusion to form a larger argument on that basis” (p. 7, italics added), it does not follow that they could not form a larger argument on some other basis, in particular that a premise in one is a conclusion in the other. Hence I find here no sufficient grounds to attribute Outcome 4 to Hitchcock and hence violations of Outcome 4 need not show need to revise Clause 3.

Should Hitchcock want Outcome 4? I see no reason to rule out argument composition resulting in divergent structure, since one evaluates divergent arguments just as if one were evaluating the separate arguments out of which they were composed. However, the situation is
different if the union results in a convergent argument. Consider Goddu’s example to show that Clause 3 allows compositions producing convergent structure:

![Figure 1](image1.png)

FIGURE 1
 compose to become

![Figure 2](image2.png)

FIGURE 2

In evaluating the reasoning for (2) in the composed argument, we are concerned to evaluate the combined weight of (1) and (4), regarding the argument as having one illative move from both of them together, not two. We are not concerned to assess the strength of each premise separately.

These considerations are aimed at establishing the following points: (1) Tolerating generating arguments with a mixed serial-divergent structure is acceptable. (2) Generating arguments with a mixed serial-convergent structure is not acceptable under the following condition: The arguments are united over a statement which functions as a conclusion and a premise in one argument, a conclusion in the other. In the resulting composed argument, that statement receives support from a larger plurality of premises\(^4\) than in either original argument.

\(^4\) This phrasing allows that plurality of premises to be either convergent or linked.
alone. If these considerations are sufficient to persuade one of points (1) and (2), claim 3 may be rendered acceptable by the addition of one word—“basic.”

3 If a conclusion of an argument A is a basic premise in argument B, then A ∪ B is an argument.

A premise is basic in an argument just in case it is not defended in the context of that argument, i.e. it is not also a conclusion in that argument. Clause 3 does not sanction composing arguments A and B above over their common element. Although in Figure 1, (2) is a conclusion of B and a premise in A, it is not a basic premise of A and so the construction in Figure 2 is not sanctioned. Notice that should A and B have the following configurations.

![Figure 3](image1)

**FIGURE 3**

3 sanctions the composed argument

![Figure 4](image2)

**FIGURE 4**

But one assesses the connection adequacy of the composed argument just as one assesses the connection adequacy of the arguments from which it is composed. Likewise should A be the above configuration and B be

![Diagram](image3)
Finally, I want to comment on Hitchcock’s Clause 5, even though Goddu does not. Even with the refinements or amendments which Goddu and I have suggested, I still find the definition inadequate because it fails to address what Johnson calls the dialectical tier. In presenting an argument, a proponent may not only present reasons for his conclusion (and reasons for those reasons), but also consider and reply to objections either to the conclusion he is defending or to steps in his argument, i.e., to rebuttals or defeaters. I find nothing in Hitchcock’s definition of ‘argument,’ even as refined, to include this dimension of argumentation in the definition. In (1991), I argued that rebuttals in Toulmin’s sense were actually elements in arguments as products (unlike Toulmin’s warrants) and also that arguments as products could include counters to these rebuttals. These elements parallel certain moves in formal disputation which Rescher identifies in Dialectics (1977). In light of the centrality of this material to argumentation, no definition of ‘argument’ can be complete without indicating how these elements may be incorporated into arguments.

REFERENCES

5 Notice that if one agrees that a definition of ‘argument’ appropriate for informal logic should define an argument as product as built up from propositional elements rather than speech acts, Goddu’s worries about his proposed revisions 3a and 3b of 3 are bypassed.