PART ONE

MACROSTRUCTURE

1

Arguments

1.1 Authors and Audiences

An argument is a social activity, the goal of which is interpersonal rational persuasion. More precisely, we'll say that an *argument* occurs when some person – the *author* of the argument – attempts to convince certain targeted individuals – the author's *audience* – to do or believe something by an appeal to reasons, or evidence. An argument is therefore an author's attempt at rational persuasion. Arguments admit of either oral or written expression, and the statement, or public presentation of an individual argument, is typically a fairly discrete communicative act, with fairly well-defined temporal or spatial boundaries. *Argumentation*, on the other hand, is the more amorphous social practice, governed by a multitude of standing norms, conventions, habits, and expectations, that arises from and surrounds the production, presentation, interpretation, criticism, clarification, and modification of individual arguments.

We'll use the term "author" loosely to refer to any person who, within a particular context, presents an argument for consideration. An author may but need not be the individual (perhaps no longer living or identifiable) originally responsible for the construction of the argument. What matters is that the author, in some sense, endorses the argument as being worthy of consideration as an instrument of rational persuasion on some particular occasion. An individual who merely reports upon the argument of another, or who refers to an argument to

illustrate points in logical theory (a practice we will engage in repeat-
edly throughout this text), does not endorse the argument in this
sense, and is therefore not its author. An author uses her argument as
a tool with the aim of altering beliefs or influencing behavior suitably
related to the argument's content. She serves as the argument's advo-
cate. We'll allow for the possibility that arguments may have multiple
authors, even within a single argumentative context.

An author's (or authors') audience is the person or persons to whom
her argument is directed. An author is typically, though she need not
be, in direct communication with her audience. It is possible, for exam-
ple, for an author to address an argument to future generations. We'll
also allow for the possibility that one person can simultaneously play
the role of both author and audience member, thereby arguing with
herself. An individual may construct an argument with the aim of ratio-
nally persuading only herself of some claim.

It's helpful to distinguish between two kinds of audiences, i.e., two
senses in which an argument can be directed toward specific individ-
uals. Since authors propose arguments with a certain aim in mind,
we can define an author's *intentional audience* as being composed of
all those individuals whom the author believes ought to be persuaded
by her argument. Authors do not always have a precise sense of the
membership within their intentional audience. Indeed, an author's
beliefs about the identity of her intentional audience can evolve as
she develops her argument, and as she struggles to articulate it within
the public domain. However, since we take the view that an author is
someone who employs her argument as an instrument of rational per-
suasion, we'll stipulate, as a matter of definition, that an author must
believe that there are certain (real or hypothetical) individuals who
ought to be persuaded by her argument, i.e. certain individuals for
whom her argument is rationally compelling. That is, we'll stipulate
that an author's intentional audience must be non-empty. An author
must have some person or group of persons in mind, under some
description or other, whom she believes ought to be persuaded by her
argument, on the basis of the evidence cited. The description involved
can be remarkably thin. For example, an author may believe simply
that anyone who accepts her evidence ought to be persuaded by her
argument. But if you cannot identify anyone for whom, in your judg-
ment, your "argument" is rationally compelling, you cannot genuinely

be engaged in the practice of interpersonal rational persuasion. What-
ever else you may take yourself to be doing in offering evidence, you
are not, strictly speaking, the author of an argument.

Since argumentation is a social practice, arguments also exhibit
a more public dimension. Accordingly, we'll define a speaker's (or
writer's) *social audience* as being composed of all those individuals
who are perceived, by those witnessing a particular communicative
exchange, to be the persons to whom that speaker, qua author, is
addressing a particular argument. (If witnesses disagree over this mat-
ter, then we'll say that the notion of a social audience is not well-defined
in the situation in question.) So a speaker *S* has a social audience just
in case those individuals, who are actually witnessing her behavior,
perceive *S* to be the author of an argument, engaged in an exercise in
rational persuasion with a particular group of individuals. A speaker's
social audience is socially constructed in the following two senses: first,
in that the identity of that audience depends upon the beliefs and per-
ceptions of individuals other than the speaker herself; and second, in
that those beliefs and perceptions are based upon publicly accessible
information.

In presenting an argument, an author typically has a social audi-
ence, since typically an author is someone who is perceived by others
to be engaged in a public attempt at rational persuasion with a certain
group of individuals. But whether she is in fact so engaged is a separate
matter. No claim strictly about an author's social audience ever entails
(or guarantees) anything about that author's personal beliefs concern-
ing what she takes herself to be doing within the public domain. It is
possible, for example, that an author may be perceived to be address-
ing her argument to one individual, when in fact she considers her
argument to be aimed at someone else.

It is also possible, though unusual, for a social audience to exist in
the absence of an author or an argument. For example, some speaker
might be perceived by others to be an author presenting an argument
to a particular group of individuals, when in fact that speaker conceives
of herself as being engaged merely in the non-argumentative telling
of a joke or a story.

Whether someone is a social audience member will depend upon
how witnesses, whose behavior will typically conform to prevailing
linguistic conventions, interpret a speaker's overt (argumentative)

behavior. These witnesses may, of course, be social audience members themselves, and individuals typically have no difficulty identifying themselves as audience members by attending to a speaker's words or gestures. Authors, for example, sometimes explicitly identify their audience by name, by pointing at or speaking directly to them, by describing them, or by some combination of these and other methods – as, for example, in the familiar greeting "Friends, Romans, countrymen, lend me your ears." Often, however, social audiences must be identified by attending to more subtle, merely suggestive contextual cues. And just as intentional audiences often have vague boundaries, often the identity of an author's social audience remains imprecise.

Clearly, it is a contingent matter whether, and if so to what extent, an author's social audience, for a specific argument, coincides with her intentional audience. However, an author who is a skilled communicator can often achieve a perfect match. An author can deliberately take steps designed to ensure that her intentional audience will understand, through explicit utterances or public gestures, that they are indeed the individuals who, she believes, ought to be persuaded by her argument.

An author, by definition, aims at rationally persuading certain individuals for whom, she believes, her argument has probative force. But an author has little hope of succeeding in rationally persuading those individuals unless she presents her argument in a way that readily leads them to recognize that a particular argument is indeed being addressed to them. Unless an author crafts her argument in such a way that it "reaches" the people for whom it is intended, she will almost certainly fail in her attempt at rational persuasion. That's why the distinction between intentional and social audiences matters.

By defining two kinds of audiences, we acknowledge the intentional aspect of argumentation while simultaneously recognizing that authors usually aim to fulfil their intentions by communicating with others within a public domain governed, in part, by widely shared linguistic norms. From a logical point of view, the author's intentional audience is the more basic notion. Every argument has a (non-empty) intentional audience, but an argument – for example, one that never appears within the public domain – may fail to have a social audience. And judgments about an author's social audience are generally also conjectures, based upon publicly accessible evidence, about the

identity of that individual's intentional audience. We generally assume that if an author is perceived to be engaged in an attempt at rational persuasion with certain individuals, then she believes that those individuals ought to be persuaded by what she has to say.

EXERCISES

1.1 Identify the first argument expressed within this text.
1.2 According to our account, not every act of reasoning or every appeal to evidence involves the presentation of an argument. Describe a dozen different kinds of situations within which someone could engage in an act of reasoning or present a body of evidence without being, in our sense, the author of an argument.
1.3 Suppose that a single individual is the author of two separate arguments. Under what conditions, if any, could these arguments have different intentional audiences? Under what conditions, if any, could they have different social audiences? Justify your answers.
1.4 Describe two different kinds of situations in which an argument, as an attempt at rational persuasion, could exist without being publicly disseminated. In which, if either of these cases, would the argument in question have a social audience?
1.5 Suppose that, in a public forum, someone presents (what they take to be) an argument. Explain how it's possible that this argument could fail to have a social audience.
1.6 Describe a situation within which an author would very likely misidentify the members of her social audience.
1.7 Explain how someone could compose and publish an argumentative essay with a substantial social audience, but an empty intentional audience. Would that individual be the author of the argument expressed within that passage? Justify your answer.
1.8 Under what conditions, if any, could an author fail to be a member of her own intentional audience? Justify your answer.
1.9 Since an author must (already) believe that the members of her intentional audience ought to be persuaded by her argument, and since an argument is an author's *attempt* at rational persuasion, how can an author argue with (i.e., attempt to rationally persuade) *herself*?

1.2 Propositions

That arguments are offered by and directed toward persons engaged in a contextually embedded teleological exercise is a crucial prag-matic consideration. Viewed from a purely semantic point of view, however, arguments are composed of *propositions,* i.e., claims that are capable of being either true or false, and that can serve as the objects of belief. Propositions are abstract objects that are independent, in vari-ous ways, of the particular (written or oral) sentences by which they are expressed. A *sentence* is a grammatical construction that is well-formed according to the syntactic conventions of some specific language. "5 is the square root of 25" and "25 is the square of 5," for example, are different sentences of English, because they are each well-formed, but composed of different sequences of words. The two sentences express the same thought with the same truth-conditions, however. That is, they share the same meaning. So they express the same proposition – the same bearer of truth values – which does not belong to the English language, is not composed of words, does not exist at any particular time or place, and is not dependent for its existence upon sentential constructions. That proposition is *what* we believe, when we believe that 5 multiplied by itself yields the product 25, regardless of how we express this belief to ourselves or to others. We will follow the standard convention, where sentence *S* expresses proposition *P,* of using *S* as a name for *P,* so that we have a ready means, in English, of referring to propositions.

Being composed of propositions, arguments, too, therefore are, in part, abstract objects. More precisely, arguments occur when individ-uals *use* certain ordered pairs of abstract objects in a particular way while engaged in an exercise in rational persuasion. The proposition that an author supports by an appeal to evidence, on a particular occa-sion, is the argument's *conclusion*; the propositions she uses in offering evidence in support of that claim are the argument's *premises.* We'll stipulate that each argument has a single conclusion, and any finite number of premises greater than or equal to one. An argument can therefore be viewed, in part, as an ordered pair, the first member of which is a non-empty, finite set of premises, and the second member of which is a single conclusion. Also essential to an argument is the further claim that the second member of this ordered pair "follows," in

some fashion, from the first member. An argument therefore involves an *inference* from the premises to the conclusion, based on the conviction that belief in the premises justifies belief in the conclusion.

This approach allows us to capture some basic intuitions concerning the identity conditions of arguments. For example, the following two passages

(A)   5 is a square root of 25. Therefore, 25 is not a prime number.

and

(B)   25 is the square of 5. It follows that 25 is not a prime number.

could express the same argument, even though they are composed of difference sentences. The author of the first passage uses certain words in order to draw an inference involving the two propositions expressed by the two sentences she employs. The author of the second passage uses two different sentences to accomplish exactly the same end. In each case, a single inference is drawn from the same premise to the same conclusion, and neither the nature of that inference nor the semantic content of the premise or the conclusion are apparently affected in any way by the authors' choice of words or by the passages' sentential structure. That's why arguments are composed of propositions, and not sentences.

A necessary condition of two persons offering the same argument is that they infer the same conclusion from the same set of premises. A further necessary condition is that they employ the same inference. (That is, if two individuals argue that the same conclusion follows from the same set of premises, but if they disagree about *how* that conclusion follows, then they cannot be offering the same argument.) Together, these conditions are jointly sufficient. So the author of (A) offers the same argument as the author of (B) provided they agree upon how the proposition that 25 is not a prime number follows from the proposition that 25 is the square of 5.

We will be concerned exclusively with arguments that are expressed within natural (rather than formal) languages. Furthermore, all of the arguments considered in this text will be expressed within prose passages of English. It will, accordingly, often require some work to extract a clear representation of an argument from any given prose passage. First of all, it is possible to express a proposition using any kind

of grammatical construction. Interrogative, optative, or exclamatory sentences, for example, can, with appropriate contextual stage setting, be used to express propositions. In the interests of clarity, therefore, it will often be helpful to paraphrase an author's words, in expressing a premise or conclusion, into the form of a declarative sentence that transparently expresses a proposition. Second, not every proposition expressed in an argumentative prose passage occurs within that passage as either a premise or a conclusion, or as (a proper) part of a premise or a conclusion. We'll refer to these propositions, which are neither identical with nor embedded in any premise or conclusion, and to the sentences by which they are expressed, as *noise*. A noisy proposition makes a claim that is extraneous to the content of the argument in question.

Arguments, as noted above, very often have the practical aim of rationally persuading someone to perform (or forbear from performing) a certain action. It is sometimes said that the conclusion of any such practical argument is an action or, less radically, an imperative. Since actions are not propositions, however, and since imperatives often do not transparently express propositions, we will adopt the convention of "translating" the written or spoken conclusion of any such practical argument into a sentence expressing a (true or false) recommendation to perform (or forbear from performing) the action in question. So, for example, a practical conclusion such as "Get thee to a nunnery" will be transformed into some such proposition as "Ophelia ought to get to a nunnery," viewed as a truth bearer. In this manner, practical arguments continue to fall within the purview of this study.

EXERCISES

1.10 Explain why we stipulate that an argument's premise set must be non-empty.

1.11 Explain why we stipulate that an argument's premise set must be finite.

1.12 Is it possible for an argument's premise set to refer to an infinite number of objects? If so, illustrate your answer with an example. If not, explain why not.

1.13 Explain why we stipulate that an argument must have a single conclusion.

1.14   Describe a context within which a non-declarative sentence can
       be used to express a proposition. Explain how this is possible.
1.15   Repeat exercise 1.14 four more times, using a different kind of
       non-declarative sentence in each case.
1.16   Multiply your age (calculated in months) by itself to obtain a
       number *n*. Describe *n* different ways of expressing the proposi-
       tion that snow is white.
1.17   Explain how it's possible to present two different arguments
       while employing exactly the same premises and conclusion. Illus-
       trate your answer with an example.
1.18   Is it a necessary condition of two authors presenting the same
       argument that they present it to the same intentional audience?
       The same social audience? Justify your answers.

1.3 Canonical Forms

An argument appears in *canonical form,* relative to the particular prose
passage by which it is expressed, when each of the argument's con-
stituent propositions is named separately in a list by a sequence of
declarative sentences, with a sentence expressing the argument's con-
clusion appearing at the end of the list, separated by a solid horizon-
tal line from the sentences expressing the argument's premises. The
solid line represents the drawing of an inference from the premises
to the conclusion, and can be read as "therefore." We will follow the
further convention of numbering the argument's constituent proposi-
tions in the order in which they occur within the prose passage, where
it is understood that noisy propositions get numbered in sequence
along with the premises and the conclusion, but that no number is
to be assigned to propositions embedded within premises or conclu-
sions. (The practice of numbering noise encourages us to read texts
more carefully, as we seek propositional candidates to fill the roles of
premises and conclusions. The reason for the second qualification is
that the semantic content of any proper part of a premise or conclusion
has in effect already been incorporated into an argument's canonical
form once a number has been assigned to that premise or conclusion
as a whole.) In other words, only propositions are assigned a num-
ber, and every proposition is assigned a number unless it's embedded
within a premise or conclusion.