# METAPHORS We Live By

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#### Preface

This book grew out of a concern, on both our parts, with how people understand their language and their experience. When we first met, in early January 1979, we found that we shared, also, a sense that the dominant views on meaning in Western philosophy and linguistics are inadequate—that "meaning" in these traditions has very little to do with what people find meaningful in their lives.

We were brought together by a joint interest in metaphor. Mark had found that most traditional philosophical views permit metaphor little, if any, role in understanding our world and ourselves. George had discovered linguistic evidence showing that metaphor is pervasive in everyday language and thought—evidence that did not fit any contemporary Anglo-American theory of meaning within either linguistics or philosophy. Metaphor has traditionally been viewed in both fields as a matter of peripheral interest. We shared the intuition that it is, instead, a matter of central concern, perhaps the key to giving an adequate account of understanding.

Shortly after we met, we decided to collaborate on what we thought would be a brief paper giving some linguistic evidence to point up shortcomings in recent theories of meaning. Within a week we discovered that certain assumptions of contemporary philosophy and linguistics that have been taken for granted within the Western tradition since the Greeks precluded us from even raising the kind of issues we wanted to address. The problem was not one of extending or patching up some existing theory of meaning

### Concepts We Live By

Metaphor is for most people a device of the poetic imagination and the rhetorical flourish—a matter of extraordinary rather than ordinary language. Moreover, metaphor is typically viewed as characteristic of language alone, a matter of words rather than thought or action. For this reason, most people think they can get along perfectly well without metaphor. We have found, on the contrary, that metaphor is pervasive in everyday life, not just in language but in thought and action. Our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature.

The concepts that govern our thought are not just matters of the intellect. They also govern our everyday functioning, down to the most mundane details. Our concepts structure what we perceive, how we get around in the world, and how we relate to other people. Our conceptual system thus plays a central role in defining our everyday realities. If we are right in suggesting that our conceptual system is largely metaphorical, then the way we think, what we experience, and what we do every day is very much a matter of metaphor.

But our conceptual system is not something we are normally aware of. In most of the little things we do every day, we simply think and act more or less automatically along certain lines. Just what these lines are is by no means obvious. One way to find out is by looking at language. Since communication is based on the same conceptual system that we use in thinking and acting, language is an important source of evidence for what that system is like.

Primarily on the basis of linguistic evidence, we have found that most of our ordinary conceptual system is metaphorical in nature. And we have found a way to begin to identify in detail just what the metaphors are that structure how we perceive, how we think, and what we do.

To give some idea of what it could mean for a concept to be metaphorical and for such a concept to structure an everyday activity, let us start with the concept ARGUMENT and the conceptual metaphor ARGUMENT IS WAR. This metaphor is reflected in our everyday language by a wide variety of expressions:

### ARGUMENT IS WAR

Your claims are indefensible.
He attacked every weak point in my argument.
His criticisms were right on target.
I demolished his argument.
I've never won an argument with him.
You disagree? Okay, shoot!
If you use that strategy, he'll wipe you out.
He shot down all of my arguments.

It is important to see that we don't just talk about arguments in terms of war. We can actually win or lose arguments. We see the person we are arguing with as an opponent. We attack his positions and we defend our own. We gain and lose ground. We plan and use strategies. If we find a position indefensible, we can abandon it and take a new line of attack. Many of the things we do in arguing are partially structured by the concept of war. Though there is no physical battle, there is a verbal battle, and the structure of an argument—attack, defense, counterattack, etc.—reflects this. It is in this sense that the ARGUMENT IS WAR metaphor is one that we live by in this culture; it structures the actions we perform in arguing.

Try to imagine a culture where arguments are not viewed in terms of war, where no one wins or loses, where there is no sense of attacking or defending, gaining or losing

ground. Imagine a culture where an argument is viewed as a dance, the participants are seen as performers, and the goal is to perform in a balanced and aesthetically pleasing way. In such a culture, people would view arguments differently, experience them differently, carry them out differently, and talk about them differently. But we would probably not view them as arguing at all: they would simply be doing something different. It would seem strange even to call what they were doing "arguing." Perhaps the most neutral way of describing this difference between their culture and ours would be to say that we have a discourse form structured in terms of battle and they have one structured in terms of dance.

This is an example of what it means for a metaphorical concept, namely, ARGUMENT IS WAR, to structure (at least in part) what we do and how we understand what we are doing when we argue. The essence of metaphor is understanding and experiencing one kind of thing in terms of another. It is not that arguments are a subspecies of war. Arguments and wars are different kinds of things—verbal discourse and armed conflict—and the actions performed are different kinds of actions. But ARGUMENT is partially structured, understood, performed, and talked about in terms of war. The concept is metaphorically structured, the activity is metaphorically structured, and, consequently, the language is metaphorically structured.

Moreover, this is the ordinary way of having an argument and talking about one. The normal way for us to talk about attacking a position is to use the words "attack a position." Our conventional ways of talking about arguments presuppose a metaphor we are hardly ever conscious of. The metaphor is not merely in the words we use—it is in our very concept of an argument. The language of argument is not poetic, fanciful, or rhetorical; it is literal. We talk about arguments that way because we conceive of them that way—and we act according to the way we conceive of

The most important claim we have made so far is that metaphor is not just a matter of language, that is, of mere words. We shall argue that, on the contrary, human thought processes are largely metaphorical. This is what we mean when we say that the human conceptual system is metaphorically structured and defined. Metaphors as linguistic expressions are possible precisely because there are metaphors in a person's conceptual system. Therefore, whenever in this book we speak of metaphors, such as Argument Is war, it should be understood that metaphor means metaphorical concept.

### The Systematicity of Metaphorical Concepts

Arguments usually follow patterns; that is, there are certain things we typically do and do not do in arguing. The fact that we in part conceptualize arguments in terms of battle systematically influences the shape arguments take and the way we talk about what we do in arguing. Because the metaphorical concept is systematic, the language we use to talk about that aspect of the concept is systematic.

We saw in the ARGUMENT IS WAR metaphor that expressions from the vocabulary of war, e.g., attack a position, indefensible, strategy, new line of attack, win, gain ground, etc., form a systematic way of talking about the battling aspects of arguing. It is no accident that these expressions mean what they mean when we use them to talk about arguments. A portion of the conceptual network of battle partially characterizes the concept of an argument, and the language follows suit. Since metaphorical expressions in our language are tied to metaphorical concepts in a systematic way, we can use metaphorical linguistic expressions to study the nature of metaphorical concepts and to gain an understanding of the metaphorical nature of our activities.

To get an idea of how metaphorical expressions in every-day language can give us insight into the metaphorical nature of the concepts that structure our everyday activities, let us consider the metaphorical concept TIME IS MONEY as it is reflected in contemporary English.

TIME IS MONEY

You're wasting my time. This gadget will save you hours.

I don't have the time to give you.
How do you spend your time these days?
That flat tire cost me an hour.
I've invested a lot of time in her.
I don't have enough time to spare for that.
You're running out of time.
You need to budget your time.
You need to budget pong.
Is that worth your while?
Do you have much time left?
He's living on borrowed time.
You don't use your time profitably.
I lost a lot of time when I got sick.
Thank you for your time.

can be spent, wasted, budgeted, invested wisely or poorly saved, or squandered. we understand and experience time as the kind of thing that resource, even money—we conceive of time that way. Thus that we act as if time is a valuable commodity—a limited tivities in a very profound way. Corresponding to the fact dustrialized societies and structure our basic everyday acnew in the history of the human race, and by no means do society by "serving time." These practices are relatively yearly budgets, interest on loans, and paying your debt to they exist in all cultures. They have arisen in modern inphone message units, hourly wages, hotel room rates, year. In our culture TIME IS MONEY in many ways: telewith the time it takes and time is precisely quantified, it has of the way that the concept of work has developed in modbecome customary to pay people by the hour, week, or ern Western culture, where work is typically associated ited resource that we use to accomplish our goals. Because Time in our culture is a valuable commodity. It is a lim-

TIME IS MONEY, TIME IS A LIMITED RESOURCE, and TIME IS A VALUABLE COMMODITY are all metaphorical concepts. They are metaphorical since we are using our everyday experiences with money, limited resources, and valuable

commodities to conceptualize time. This isn't a necessary way for human beings to conceptualize time; it is tied to our culture. There are cultures where time is none of these things

The metaphorical concepts TIME IS MONEY, TIME IS A RESOURCE, and TIME IS A VALUABLE COMMODITY form a single system based on subcategorization, since in our society money is a limited resource and limited resources are valuable commodities. These subcategorization relationships characterize entailment relationships between the metaphors. TIME IS MONEY entails that TIME IS A LIMITED RESOURCE, which entails that TIME IS A VALUABLE COMMODITY.

We are adopting the practice of using the most specific metaphorical concept, in this case TIME IS MONEY, to characterize the entire system. Of the expressions listed under the TIME IS MONEY metaphor, some refer specifically to money (spend, invest, budget, profitably, cost), others to limited resources (use, use up, have enough of, run out of), and still others to valuable commodities (have, give, lose, thank you for). This is an example of the way in which metaphorical entailments can characterize a coherent system of metaphorical concepts and a corresponding coherent system of metaphorical expressions for those concepts.

### Metaphorical Systematicity: Highlighting and Hiding

preoccupied with the battle aspects, we often lose sight of the cooperative aspects. can be viewed as giving you his time, a valuable commodity, in an effort at mutual understanding. But when we are tive aspects of arguing. Someone who is arguing with you and defending our own, we may lose sight of the cooperawhen we are intent on attacking our opponent's position other aspects of the concept that are inconsistent with that metaphor. For example, in the midst of a heated argument, one aspect of a concept (e.g., the battling aspects of arguing), a metaphorical concept can keep us from focusing on ing an aspect of arguing in terms of battle) will necessarily aspect of a concept in terms of another (e.g., comprehendhide other aspects of the concept. In allowing us to focus on The very systematicity that allows us to comprehend one

roughly by the following complex metaphor: observes that our language about language is structured Michael Reddy has called the "conduit metaphor." Reddy hide an aspect of our experience can be seen in what A far more subtle case of how a metaphorical concept can

COMMUNICATION IS SENDING. LINGUISTIC EXPRESSIONS ARE CONTAINERS. IDEAS (OF MEANINGS) ARE OBJECTS.

glish, which he estimates account for at least 70 percent of this with more than a hundred types of expressions in Enidea/objects out of the word/containers. Reddy documents and sends them (along a conduit) to a hearer who takes the The speaker puts ideas (objects) into words (containers)

> some examples: the expressions we use for talking about language. Here are

The conduit Metaphor

It's hard to get that idea across to him.

I gave you that idea.

Your reasons came through to us.

It's difficult to put my ideas into words.

When you have a good idea, try to capture it immediately in

Try to pack more thought into fewer words

You can't simply stuff ideas into a sentence any old way.

The meaning is right there in the words.

Don't force your meanings into the wrong words

His words carry little meaning.

The introduction has a great deal of thought content.

Your words seem hollow.

The sentence is without meaning.

The idea is buried in terribly dense paragraphs

municative process. some of the ways in which it masks aspects of the comlook at what the CONDUIT metaphor entails, we can see ventional way of thinking about language that it is somethere is a metaphor here at all. This is so much the contimes hard to imagine that it might not fit reality. But if we there is anything hidden by the metaphor or even to see that In examples like these it is far more difficult to see that

contexts and speakers. These metaphors are appropriate in PRESSIONS ARE CONTAINERS FOR MEANING entails that texts. The part of the metaphor that says LINGUISTIC EX-OBJECTS part of the metaphor, for example, entails that many situations-those where context differences don't words (and sentences) have meanings, again independent of meanings have an existence independent of people and condependent of any context or speaker. The MEANINGS ARE words and sentences have meanings in themselves, in-MEANINGS aspect of the CONDUIT metaphor entails that First, the LINGUISTIC EXPRESSIONS ARE CONTAINERS FOR

matter and where all the participants in the conversation understand the sentences in the same way. These two entailments are exemplified by sentences like

The meaning is right there in the words,

which, according to the CONDUIT metaphor, can correctly be said of any sentence. But there are many cases where context does matter. Here is a celebrated one recorded in actual conversation by Pamela Downing:

Please sit in the apple-juice seat.

In isolation this sentence has no meaning at all, since the expression "apple-juice seat" is not a conventional way of referring to any kind of object. But the sentence makes perfect sense in the context in which it was uttered. An overnight guest came down to breakfast. There were four place settings, three with orange juice and one with apple juice. It was clear what the apple-juice seat was. And even the next morning, when there was no apple juice, it was still clear which seat was the apple-juice seat.

In addition to sentences that have no meaning without context, there are cases where a single sentence will mean different things to different people. Consider:

We need new alternative sources of energy.

This means something very different to the president of Mobil Oil from what it means to the president of Friends of the Earth. The meaning is not right there in the sentence—it matters a lot who is saying or listening to the sentence and what his social and political attitudes are. The CONDUIT metaphor does not fit cases where context is required to determine whether the sentence has any meaning at all and, if so, what meaning it has.

These examples show that the metaphorical concepts we have looked at provide us with a partial understanding of what communication, argument, and time are and that, in doing this, they hide other aspects of these concepts. It is

important to see that the metaphorical structuring involved here is partial, not total. If it were total, one concept would actually be the other, not merely be understood in terms of it. For example, time isn't really money. If you spend your time trying to do something and it doesn't work, you can't get your time back. There are no time banks. I can give you a lot of time, but you can't give ne back the same time, though you can give me back the sa ne amount of time. And so on. Thus, part of a metaphorical concept does not and cannot fit.

On the other hand, metaphorical concepts can be extended beyond the range of ordinary literal ways of thinking and talking into the range of what is called figurative, poetic, colorful, or fanciful though and language. Thus, if ideas are objects, we can dress them up in fancy clothes, juggle them, line them up nice and neat, etc. So when we say that a concept is structured by a metaphor, we mean that it is partially structured and that it can be extended in some ways but not others.



### Orientational Metaphors

So far we have examined what we will call structural metaphors, cases where one concept is metaphorically structured in terms of another. But there is another kind of metaphorical concept, one that does not structure one concept in terms of another but instead organizes a whole system of concepts with respect to one another. We will call these orientational metaphors, since most of them have to do with spatial orientation: up-down, in-out, front-back, on-off, deep-shallow, central-peripheral. These spatial orientations arise from the fact that we have bodies of the sort we have and that they function as they do in our physical environment. Orientational metaphors give a concept a spatial orientation; for example, HAPPY IS UP. The fact that the concept HAPPY is oriented UP leads to English expressions like "I'm feeling up today."

Such metaphorical orientations are not arbitrary. They have a basis in our physical and cultural experience. Though the polar oppositions up-down, in-out, etc., are physical in nature, the orientational metaphors based on them can vary from culture to culture. For example, in some cultures the future is in front of us, whereas in others it is in back. We will be looking at up-down spatialization metaphors, which have been studied intensively by William Nagy (1974), as an illustration. In each case, we will give a brief hint about how each metaphorical concept might have arisen from our physical and cultural experience. These accounts are meant to be suggestive and plausible, not definitive.

HAPPY IS UP; SAD IS DOWN

I'm feeling up. That boosted my spirits. My spirits rose. You're in high spirits. Thinking about her always gives me a lift. I'm feeling down. I'm depressed. He's really low these days. I fell into a depression. My spirits sank.

Physical basis: Drooping posture typically goes along with sadness and depression, erect posture with a positive emotional state.

CONSCIOUS IS UP; UNCONSCIOUS IS DOWN

Get up. Wake up. I'm up already. He rises early in the morning, He fell asleep. He dropped off to sleep. He's under hypnosis. He sank into a coma.

Physical basis: Humans and most other mammals sleep lying down and stand up when they awaken.

HEALTH AND LIFE ARE UP; SICKNESS AND DEATH ARE DOWN He's at the *peak* of health. Lazarus *rose* from the dead. He's in *top* shape. As to his health, he's way *up* there. He *fell* ill. He's *sinking* fast. He came *down* with the flu. His health is *declining*. He *dropped* dead.

Physical basis: Serious illness forces us to lie down physically. When you're dead, you are physically down.

HAVING CONTROL OF FORCE IS UP; BEING SUBJECT TO CONTROL OF FORCE IS DOWN

I have control over her. I am on top of the situation. He's in a superior position. He's at the height of his power. He's in the high command. He's in the upper echelon. His power rose. He ranks above me in strength. He is under my control. He fell from power. His power is on the decline. He is my social inferior. He is low man on the totem pole.

Physical basis: Physical size typically correlates with physical strength, and the victor in a fight is typically on top.

MORE IS UP; LESS IS DOWN

The number of books printed each year keeps going up. His

draft number is high. My income rose last year. The amount of artistic activity in this state has gone down in the past year. The number of errors he made is incredibly low. His income fell last year. He is underage. If you're too hot, turn the heat down.

Physical basis: If you add more of a substance or of physical objects to a container or pile, the level goes up.

FORESEEABLE FUTURE EVENTS ARE UP (and AHEAD)

All up coming events are listed in the paper. What's coming up this week? I'm afraid of what's up ahead of us. What's up?

Physical basis: Normally our eyes look in the direction in which we typically move (ahead, forward). As an object approaches a person (or the person approaches the object), the object appears larger. Since the ground is perceived as being fixed, the top of the object appears to be moving upward in the person's field of vision.

HIGH STATUS IS UP; LOW STATUS IS DOWN

He has a lofty position. She'll rise to the top. He's at the peak of his career. He's climbing the ladder. He has little upward mobility. He's at the bottom of the social hierarchy. She fell in status.

Social and physical basis: Status is correlated with (social) power and (physical) power is UP.

GOOD IS UP; BAD IS DOWN

Things are looking up. We hit a peak last year, but it's been downhill ever since. Things are at an all-time low. He does high-quality work.

Physical basis for personal well-being: Happiness, health, life, and control—the things that principally characterize what is good for a person—are all UP.

VIRTUE IS UP; DEPRAVITY IS DOWN

He is high-minded. She has high standards. She is upright. She is an upstanding citizen. That was a low trick. Don't be

underhanded. I wouldn't stoop to that. That would be beneath me. He fell into the abyss of depravity. That was a low-down thing to do.

Physical and social basis: GOOD IS UP for a person (physical basis), together with a metaphor that we will discuss below, society is a person (in the version where you are not identifying with your society). To be virtuous is to act in accordance with the standards set by the society/person to maintain its well-being. VIRTUE IS UP because virtuous actions correlate with social well-being from the society/person's point of view. Since society/person's point of view that counts.

RATIONAL IS UP; EMOTIONAL IS DOWN

The discussion fell to the emotional level, but I raised it back up to the rational plane. We put our feelings aside and had a high-level intellectual discussion of the matter. He couldn't rise above his emotions.

Physical and cultural basis: In our culture people view themselves as being in control over animals, plants, and their physical environment, and it is their unique ability to reason that places human beings above other animals and gives them this control. CONTROL IS UP thus provides a basis for MAN IS UP and therefore for RATIONAL IS UP.

#### Conclusions

On the basis of these examples, we suggest the following conclusions about the experiential grounding, the coherence, and the systematicity of metaphorical concepts:

—Most of our fundamental concepts are organized in terms of one or more spatialization metaphors.

—There is an internal systematicity to each spatialization metaphor. For example, HAPPY IS UP defines a coherent system rather than a number of isolated and random cases. (An example of an incoherent system would be one where, say, "I'm

ORIENTATIONAL METAPHORS

feeling up" meant "I'm feeling happy," but "My spirits rose" meant "I became sadder.")

-There is an overall external systematicity among the various spatialization metaphors, which defines coherence among them. Thus, GOOD IS UP gives an UP orientation to general well-being, and this orientation is coherent with special cases like HAPPY IS UP, HEALTH IS UP, ALIVE IS UP, CONTROL IS UP. STATUS IS UP is coherent with CONTROL IS UP.

—Spatialization metaphors are rooted in physical and cultural experience; they are not randomly assigned. A metaphor can serve as a vehicle for understanding a concept only by virtue of its experiential basis. (Some of the complexities of the experiential basis of metaphor are discussed in the following section.)

metaphor. Coherence within the overall system seems to be part of the reason why one is chosen and not another. For example, happiness also tends to correlate physically with a smile and a general feeling of expansiveness. This could in principle form the basis for a metaphor HAPPY IS WIDE; SAD IS NARROW. And in fact there are minor metaphorical expressions, like "I'm feeling expansive," that pick out a different aspect of happiness than "I'm feeling up" does. But the major metaphor in our culture is HAPPY IS UP; there is a reason why we speak of the height of ecstasy rather than the breadth of ecstasy. HAPPY IS UP is maximally coherent with GOOD IS UP,

—In some cases spatialization is so essential a part of a concept that it is difficult for us to imagine any alternative metaphor that might structure the concept. In our society "high status" is such a concept. Other cases, like happiness, are less clear. Is the concept of happiness independent of the HAPPY IS UP metaphor, or is the up-down spatialization of happiness a part of the concept? We believe that it is a part of the concept within a given conceptual system. The HAPPY IS UP metaphor places happiness within a coherent metaphorical system, and part of its meaning comes from its role in that system.

-So-called purely intellectual concepts, e.g., the concepts in a

scientific theory, are often—perhaps always—based on metaphors that have a physical and/or cultural basis. The high in "high-energy particles" is based on MORE IS UP. The high in "high-level functions," as in physiological psychology, is based on RATIONAL IS UP. The low in "low-level phonology" (which refers to detailed phonetic aspects of the sound systems of languages) is based on MUNDANE REALITY IS DOWN (as in "down to earth"). The intuitive appeal of a scientific theory has to do with how well its metaphors fit one's experience.

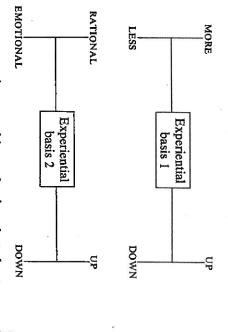
—Our physical and cultural experience provides many possible bases for spatialization metaphors. Which ones are chosen, and which ones are major, may vary from culture to culture.

—It is hard to distinguish the physical from the cultural basis of a metaphor, since the choice of one physical basis from among many possible ones has to do with cultural coherence.

### Experiential Bases of Metaphors

We do not know very much about the experiential bases of metaphors. Because of our ignorance in this matter, we have described the metaphors separately, only later adding speculative notes on their possible experiential bases. We are adopting this practice out of ignorance, not out of principle. In actuality we feel that no metaphor can ever be comprehended or even adequately represented independently of its experiential basis. For example, More is up has a very different kind of experiential basis than happy is up or rational is up. Though the concept up is the same in all these metaphors, the experiences on which these up metaphors are based are very different. It is not that there are many different ups; rather, verticality enters our experience in many different ways and so gives rise to many different metaphors.

One way of emphasizing the inseparability of metaphors from their experiential bases would be to build the experiential basis into the representations themselves. Thus, instead of writing MORE IS UP and RATIONAL IS UP, we might have the more complex relationship shown in the diagram.



Such a representation would emphasize that the two parts of each metaphor are linked only via an experiential basis and that it is only by means of these experiential bases that the metaphor can serve the purpose of understanding.

We will not use such representations, but only because we know so little about experiential bases of metaphors. We will continue to use the word "is" in stating metaphors like MORE IS UP, but the IS should be viewed as a shorthand for some set of experiences on which the metaphor is based and in terms of which we understand it.

The role of the experiential basis is important in understanding the workings of metaphors that do not fit together because they are based on different kinds of experience. Take, for example, a metaphor like UNKNOWN IS UP; KNOWN IS DOWN. Examples are "That's up in the air" and "The matter is settled." This metaphor has an experiential basis very much like that of UNDERSTANDING IS GRASPING, as in "I couldn't grasp his explanation." With physical objects, if you can grasp something and hold it in your hands, you can look it over carefully and get a reasonably good understanding of it. It's easier to grasp something and look at it carefully if it's on the ground in a fixed location than if it's floating through the air (like a leaf or a piece of paper). Thus UNKNOWN IS UP; KNOWN IS DOWN is coherent with UNDERSTANDING IS GRASPING.

But UNKNOWN IS UP is not coherent with metaphors like GOOD IS UP and FINISHED IS UP (as in "I'm finishing up"). One would expect FINISHED to be paired with KNOWN and UNFINISHED to be paired with UNKNOWN. But, so far as verticality metaphors are concerned, this is not the case. The reason is that UNKNOWN IS UP has a very different experiential basis than FINISHED IS UP.

The most fundamental values in a culture will be coherent with the metaphorical structure of the most fundamental concepts in the culture. As an example, let us consider some cultural values in our society that are coherent with our UP-DOWN spatialization metaphors and whose opposites would not be.

"More is better" is coherent with MORE IS UP and GOOD IS UP.
"Less is better" is not coherent with them.

"Bigger is better" is coherent with MORE IS UP and GOOD IS UP. "Smaller is better" is not coherent with them.

"The future will be better" is coherent with THE FUTURE IS UP and GOOD IS UP. "The future will be worse" is not.

"There will be more in the future" is coherent with MORE IS UP and THE FUTURE IS UP.

"Your status should be higher in the future" is coherent with HIGH STATUS IS UP and THE FUTURE IS UP.

These are values deeply embedded in our culture. "The future will be better" is a statement of the concept of progress. "There will be more in the future" has as special cases the accumulation of goods and wage inflation. "Your status should be higher in the future" is a statement of careerism. These are coherent with our present spatialization metaphors; their opposites would not be. So it seems that our values are not independent but must form a coherent system with the metaphorical concepts we live by. We are not claiming that all cultural values coherent with a

metaphorical system actually exist, only that those that do exist and are deeply entrenched are consistent with the metaphorical system.

The values listed above hold in our culture generally—all things being equal. But because things are usually not equal, there are often conflicts among these values and hence conflicts among the metaphors associated with them. To explain such conflicts among values (and their metaphors), we must find the different priorities given to these values and metaphors by the subculture that uses them. For instance, More is up seems always to have the highest priority since it has the clearest physical basis. The priority of More is up over good is up can be seen in examples like "Inflation is rising" and "The crime rate is going up." Assuming that inflation and the crime rate are bad, these sentences mean what they do because More is up always has top priority.

ING MONEY IS BETTER has priority over BIGGER IS BETTER. SOURCES IS VIRTUOUS took priority over BIGGER IS BETTER. within the subculture where VIRTUE IS UP and SAVING REenergy crisis) when owning a small car had a high status drastically because there is a large subculture where sav-Nowadays the number of small-car owners has gone up and there are others where the future comes first and you smaller, cheaper car. There are American subcultures payments that will eat up future salary, or whether to buy a question of whether to buy a big car now, with large time THERE WILL BE MORE IN THE FUTURE when it comes to the culture share basic values but give them different priorities. buy the small car. There was a time (before inflation and the where you buy the big car and don't worry about the future, For example, BIGGER IS BETTER may be in conflict with personal values. The various subcultures of a mainstream matter of the subculture one lives in and partly a matter of In general, which values are given priority is partly a

In addition to subcultures, there are groups whose defining characteristic is that they share certain important values

orientational metaphors of the mainstream culture. to what is important for the group, coherent with the major value system is both internally coherent and, with respect Relative to what is important for a monastic group, the BE BETTER with respect to what is important, and so on. better to have more of what is important, THE FUTURE WILL may be radically redefined, but they are still UP. It is still of the mainstream culture. Virtue, goodness, and status salvation (really UP). This is typical of groups that are out UP, though it is not of this world but of a higher one, the still BETTER, though it applies to virtue; and status is still is true in terms of spiritual growth (UP) and, ultimately, Kingdom of God. Moreover, THE FUTURE WILL BE BETTER highest priority and a very different definition. MORE is portant, namely, serving God. The Trappists share the rial possessions, which are viewed as hindering what is immainstream value VIRTUE IS UP, though they give it the TER and SMALLER IS BETTER are true with respect to mate-Take monastic orders like the Trappists. There LESS IS BETless obvious ways they preserve other mainstream values. that conflict with those of the mainstream culture. But in

stream culture. ent with the major orientational metaphors of the mainportant for them, their individual value systems are cohersense, they are subgroups of one. Relative to what is imways they define what is good or virtuous to them. In this Individuals, like groups, vary in their priorities and in the

which orientations are most important vary from culture to all cultures, but which concepts are oriented which way and central-peripheral, active-passive, etc., seem to cut across activity. In general the major orientations up-down, in-out, But there are cultures where passivity is valued more than For us ACTIVE IS UP and PASSIVE IS DOWN in most matters. ture. Or consider the nonspatial orientation active-passive plays a much more important role than it does in our culorientation. There are cultures where balance or centrality Not all cultures give the priorities we do to up-down

### **Ontological Metaphors**

### Entity and Substance Metaphors

center-periphery, and near-far provide an extraordinarily Spatial orientations like up-down, front-back, on-off, entities or substances, we can refer to them, categorize a uniform kind. Once we can identify our experiences as perience and treat them as discrete entities or substances of jects and substances allows us to pick out parts of our exorientation. Understanding our experiences in terms of obfurther basis for understanding—one that goes beyond mere experience of physical objects and substances provides a terms. But one can do only so much with orientation. Our rich basis for understanding concepts in orientational reason about them. them, group them, and quantify them—and, by this means,

mountains, meeting at street corners, trimming hedges. needed to satisfy certain purposes that we have: locating hedges, etc. Such ways of viewing physical phenomena are categorize them as such, e.g., mountains, street corners, we are: entities bounded by a surface. boundaries that make physical phenomena discrete just as Human purposes typically require us to impose artificial When things are not clearly discrete or bounded, we still

ences with physical objects (especially our own bodies) tological metaphors, that is, ways of viewing events, acprovide the basis for an extraordinarily wide variety of ontions give rise to orientational metaphors, so our experiuvities, emotions, ideas, etc., as entities and substances. Just as the basic experiences of human spatial orienta-

Ontological metaphors serve various purposes, and the

noun inflation. This gives us a way of referring to the exwhich can be metaphorically viewed as an entity via the purposes served. Take the experience of rising prices, various kinds of metaphors there are reflect the kinds of

### INFLATION IS AN ENTITY

Inflation is lowering our standard of living.

We need to combat inflation. If there's much more inflation, we'll never survive.

Inflation is backing us into a corner.

Inflation is taking its toll at the checkout counter and the gas

Inflation makes me sick. Buying land is the best way of dealing with inflation

experiences. necessary for even attempting to deal rationally with our as a cause, act with respect to it, and perhaps even believe that we understand it. Ontological metaphors like this are refer to it, quantify it, identify a particular aspect of it, see it In these cases, viewing inflation as an entity allows us to

of ontological metaphors that serve them. purposes is enormous. The following list gives some idea of the kinds of purposes, along with representative examples The range of ontological metaphors that we use for such

My fear of insects is driving my wife crazy. That was a beautiful catch.

We are working toward peace.

The middle class is a powerful silent force in American poli-

The honor of our country is at stake in this war

#### Quantifying

You've got too much hostility in you. DuPont has a lot of political power in Delaware There is so much hatred in the world. It will take a lot of patience to finish this book

Pete Rose has a lot of hustle and baseball know-how

### Identifying Aspects

The ugly side of his personality comes out under pressure.

The brutality of war dehumanizes us all

I can't keep up with the pace of modern life. His emotional health has deteriorated recently.

We never got to feel the thrill of victory in Vietnam.

### Identifying Causes

The pressure of his responsibilities caused his breakdown.

Our influence in the world has declined because of our  $lack\ of$ He did it out of anger.

Internal dissension cost them the pennant moral fiber.

### Setting Goals and Motivating Actions

He went to New York to seek fame and fortune.

Here's what you have to do to insure financial security. The FBI will act quickly in the face of a threat to national se-I'm changing my way of life so that I can find true happiness.

She saw getting married as the solution to her problems.

son for this is that ontological metaphors, like orientational expressions are not noticed as being metaphorical. One rearated in our culture. may be further elaborated. Here are two examples of how prehend very much about it. But ontological metaphors metaphors, serve a very limited range of purposesthe ontological metaphor THE MIND IS AN ENTITY is elabothing as an entity or substance does not allow us to comreferring, quantifying, etc. Merely viewing a nonphysical As in the case of orientational metaphors, most of these

### THE MIND IS A MACHINE

My mind just isn't operating today. We're still trying to grind out the solution to this equation.

Boy, the wheels are turning now!

I'm a little rusty today. We've been working on this problem all day and now we're running out of steam.

ONTOLOGICAL METAPHORS

THE MIND IS A BRITTLE OBJECT His mind snapped. I'm going to pieces. The experience shattered him. She is easily crushed. He broke under cross-examination. Her ego is very fragile. You have to handle him with care since his wife's death.

either metaphor. The examples we have in mind are these: about psychological strength. However, there is a range of mental experience that can be conceived of in terms of of the mind as having an on-off state, a level of efficiency, a metaphor is not nearly as rich. It allows us to talk only energy, and an operating condition. The BRITTLE OBJECT productive capacity, an internal mechanism, a source of experience. The MACHINE metaphor gives us a conception and thereby allow us to focus on different aspects of mental give us different metaphorical models for what the mind is These metaphors specify different kinds of objects. They

He cracked up. (THE MIND IS A BRITTLE OBJECT) He broke down. (THE MIND IS A MACHINE)

up." On the other hand, if someone becomes lethargic and more likely to say "He broke down." unable to function for psychological reasons, we would be wild or violent, it would be appropriate to say "He cracked Thus, for example, when someone goes crazy and becomes its pieces go flying, with possibly dangerous consequences aspect of mental experience. When a machine breaks down, it simply ceases to function. When a brittle object shatters, But these two metaphors do not focus on exactly the same

directly true or false. This expression was in fact used by evident, direct descriptions of mental phenomena. The fact take statements like "He cracked under pressure" as being that they are metaphorical never occurs to most of us. We pervasive in our thought that they are usually taken as self-Ontological metaphors like these are so natural and so

> model most of us think and operate in terms of. various journalists to explain why Dan White brought his of the model of the mind that we have in this culture; it is the phors like THE MIND IS A BRITTLE OBJECT are an integral part perfectly natural to most of us. The reason is that meta-Mayor George Moscone. Explanations of this sort seem gun to the San Francisco City Hall and shot and killed

### Container Metaphors

#### Land Areas

containers with an inside and an outside. Rooms and houses ary that can be viewed as defining a container, we impose can perceive as a natural boundary—the fuzzy area where out of the woods. A clearing in the woods has something we being in the clearing or out of the clearing, in the woods or environment as well. A clearing in the woods is seen as what's inside it. We impose this orientation on our natural of one room and into another. We even give solid objects moving from one container to another, that is, moving out are obvious containers. Moving from room to room is that are bounded by surfaces. Thus we also view them as ject our own in-out orientation onto other physical objects with a bounding surface and an in-out orientation. We prothe world by the surface of our skins, and we experience the putting a boundary around it, is an act of quantification basic than territoriality. And such defining of a territory, abstract line or plane. There are few human instincts more and a bounding surface-whether a wall, a fence, or an boundaries-marking off territory so that it has an inside begins. But even where there is no natural physical boundthe trees more or less stop and the clearing more or less having a bounding surface, and we can view ourselves as this orientation, as when we break a rock open to see rest of the world as outside us. Each of us is a container We are physical beings, bounded and set off from the rest of

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Bounded objects, whether human beings, rocks, or land areas, have sizes. This allows them to be quantified in terms of the amount of substance they contain. Kansas, for example, is a bounded area—a container—which is why we can say, "There's a lot of land in Kansas."

Substances can themselves be viewed as containers. Take a tub of water, for example. When you get into the tub, you get into the water. Both the tub and the water are viewed as containers, but of different sorts. The tub is a CONTAINER OBJECT, while the water is a CONTAINER SUBSTANCE.

### The Visual Field

We conceptualize our visual field as a container and conceptualize what we see as being inside it. Even the term "visual field" suggests this. The metaphor is a natural one that emerges from the fact that, when you look at some territory (land, floor space, etc.), your field of vision defines a boundary of the territory, namely, the part that you can see. Given that a bounded physical space is a CONTAINER and that our field of vision correlates with that bounded physical space, the metaphorical concept VISUAL FIELDS ARE CONTAINERS emerges naturally. Thus we can say:

The ship is coming into view.

I have him in sight.

I can't see him—the tree is in the way.
He's out of sight now.
That's in the center of my field of vision.
There's nothing in sight.
I can't get all of the ships in sight at once.

## Events, Actions, Activities, and States

We use ontological metaphors to comprehend events, actions, activities, and states. Events and actions are conceptualized metaphorically as objects, activities as substances, states as containers. A race, for example, is an event, which is viewed as a discrete entity. The race exists

in space and time, and it has well-defined boundaries. Hence we view it as a CONTAINER OBJECT, having in it participants (which are objects), events like the start and finish (which are metaphorical objects), and the activity of running (which is a metaphorical substance). Thus we can say of a race:

Are you in the race on Sunday? (race as CONTAINER OBJECT)

Are you going to the race? (race as OBJECT)

Did you see the race? (race as object)

The finish of the race was really exciting. (finish as EVENT OBJECT within CONTAINER OBJECT)

There was a lot of good running in the race. (running as a SUBSTANCE in a CONTAINER)

I couldn't do *much sprinting* until the end. (sprinting as SUBSTANCE)

Halfway into the race, I ran out of energy. (race as CONTAINER OBJECT)

He's out of the race now. (race as CONTAINER OBJECT)

Activities in general are viewed metaphorically as SUB-STANCES and therefore as CONTAINERS:

In washing the window, I splashed water all over the floor. How did Jerry get out of washing the windows? Outside of washing the windows, what else did you do? How much window-washing did you do? How did you get into window-washing as a profession? He's immersed in washing the windows right now.

Thus, activities are viewed as containers for the actions and other activities that make them up. They are also viewed as containers for the energy and materials required for them and for their by-products, which may be viewed as *in* them or as *emerging from* them:

I put a lot of energy into washing the windows. I get a lot of satisfaction out of washing windows. There is a lot of satisfaction in washing windows.

Various kinds of states may also be conceptualized as containers. Thus we have examples like these:

We're out of trouble now.
He's coming out of the coma.
I'm slowly getting into shape.
He entered a state of euphoria.

He fell into a depression.

He finally emerged from the

He finally *emerged from* the catatonic state he had been in since the end of finals week.

### Personification

Perhaps the most obvious ontological metaphors are those where the physical object is further specified as being a person. This allows us to comprehend a wide variety of experiences with nonhuman entities in terms of human motivations, characteristics, and activities. Here are some examples:

His theory explained to me the behavior of chickens raised in factories.

This fact argues against the standard theories

Life has cheated me.

Inflation is eating up our profits.

His religion tells him that he cannot drink fine French wines. The Michelson-Morley experiment gave birth to a new

physical theory.

Cancer finally caught up with him.

In each of these cases we are seeing something nonhuman as human. But personification is not a single unified general process. Each personification differs in terms of the aspects of people that are picked out. Consider these examples.

Inflation has attacked the foundation of our economy. Inflation has pinned us to the wall.

Our biggest enemy right now is inflation.

The dollar has been destroyed by inflation. Inflation has robbed me of my savings.

Inflation has outwitted the best economic minds in the coun-

Inflation has given birth to a money-minded generation. Here inflation is personified, but the metaphor is not

merely inflation is a person. It is much more specific, namely, inflation is an adversary. It not only gives us a very specific way of thinking about inflation but also a way of acting toward it. We think of inflation as an adversary that can attack us, hurt us, steal from us, even destroy us. The inflation is an adversary metaphor therefore gives rise to and justifies political and economic actions on the part of our government: declaring war on inflation, setting targets, calling for sacrifices, installing a new chain of command, etc.

The point here is that personification is a general category that covers a very wide range of metaphors, each picking out different aspects of a person or ways of looking at a person. What they all have in common is that they are extensions of ontological metaphors and that they allow us to make sense of phenomena in the world in human terms—terms that we can understand on the basis of our own motivations, goals, actions, and characteristics. Viewing something as abstract as inflation in human terms has an explanatory power of the only sort that makes sense to most people. When we are suffering substantial economic losses due to complex economic and political factors that no one really understands, the INFLATION IS AN ADVERSARY metaphor at least gives us a coherent account of why we're suffering these losses.

#### Metonymy

In the cases of personification that we have looked at we are imputing human qualities to things that are not human—theories, diseases, inflation, etc. In such cases there are no actual human beings referred to. When we say "Inflation robbed me of my savings," we are not using the term "inflation" to refer to a person. Cases like this must be distinguished from cases like

The ham sandwich is waiting for his check.

where the expression "the ham sandwich" is being used to refer to an actual person, the person who ordered the ham sandwich. Such cases are not instances of personification metaphors, since we do not understand "the ham sandwich" by imputing human qualities to it. Instead, we are using one entity to refer to another that is related to it. This is a case of what we will call metonymy. Here are some further examples:

He likes to read the *Marquis de Sade*. (= the writings of the marquis)

He's in dance. (= the dancing profession)

Acrylic has taken over the art world. (= the use of acrylic paint)

The Times hasn't arrived at the press conference yet. (= the reporter from the Times)

Mrs. Grundy frowns on blue jeans. (= the wearing of blue jeans)

New windshield wipers will satisfy him. (= the state of having new wipers)

We are including as a special case of metonymy what traditional rhetoricians have called *synecdoche*, where the part stands for the whole, as in the following.

THE PART FOR THE WHOLE

The *automobile* is clogging our highways. (= the collection of automobiles)

We need a couple of strong bodies for our team. (= strong people)

There are a lot of good heads in the university. (= intelligent people)

I've got a new set of wheels. (= car, motorcycle, etc.)
We need some new blood in the organization. (= new people)

reporter represents. So "The Times has not yet arrived for but also to suggest the importance of the institution the of other kinds of metonymies. When we say "The Times "The Times" not merely to refer to some reporter or other hasn't arrived at the press conference yet," we are using gence, which is associated with the head. The same is true out a particular characteristic of the person, namely, intelligood heads on the project, we are using "good heads" to part (head) to stand for a whole (person) but rather to pick refer to "intelligent people." The point is not just to use a whole we are focusing on. When we say that we need some example, in the case of the metonymy THE PART FOR THE Which part we pick out determines which aspect of the WHOLE there are many parts that can stand for the whole. It also serves the function of providing understanding. For another. But metonymy is not merely a referential device function, that is, it allows us to use one entity to stand for Metonymy, on the other hand, has primarily a referential metonymy are different kinds of processes. Metaphor is entity is being used to refer to another. Metaphor and another, and its primary function is understanding, principally a way of conceiving of one thing in terms of In these cases, as in the other cases of metonymy, one

"Steve Roberts has not yet arrived for the press conference," even though Steve Roberts may be the *Times* reporter in question.

Thus metonymy serves some of the same purposes that metaphor does, and in somewhat the same way, but it allows us to focus more specifically on certain aspects of what is being referred to. It is also like metaphor in that it is not just a poetic or rhetorical device. Nor is it just a matter of language. Metonymic concepts (like the part for the whole) are part of the ordinary, everyday way we think and act as well as talk.

For example, we have in our conceptual system a special case of the metonymy THE PART FOR THE WHOLE, namely, THE FACE FOR THE PERSON. For example:

She's just a pretty face.

There are an awful lot of faces out there in the audience. We need some new faces around here.

This metonymy functions actively in our culture. The tradition of portraits, in both painting and photography, is based on it. If you ask me to show you a picture of my son and I show you a picture of his face, you will be satisfied. You will consider yourself to have seen a picture of him. But if I show you a picture of his body without his face, you will consider it strange and will not be satisfied. You might even ask, "But what does he look like?" Thus the metonymy THE FACE FOR THE PERSON is not merely a matter of language. In our culture we look at a person's face—rather than his posture or his movements—to get our basic information about what the person is like. We function in terms of a metonymy when we perceive the person in terms of his face and act on those perceptions.

Like metaphors, metonymies are not random or arbitrary occurrences, to be treated as isolated instances. Metonymic concepts are also systematic, as can be seen in the following representative examples that exist in our culture.

the press conference" means something different from

THE PART FOR THE WHOLE

Get your butt over here!

We don't hire longhairs.

The Giants need a stronger arm in right field.

I've not a new four on the floor V 8

I've got a new four-on-the-floor V-8.

### PRODUCER FOR PRODUCT

I'll have a *Löwenbräu*. He bought a *Ford*. He's got a *Picasso* in his den. I hate to read *Heidegger*.

### OBJECT USED FOR USER

The sax has the flu today.
The BLT is a lousy tipper.
The gun he hired wanted fifty grand.
We need a better glove at third base.
The buses are on strike.

### CONTROLLER FOR CONTROLLED

Nixon bombed Hanoi.

Ozawa gave a terrible concert last night.

Napoleon lost at Waterloo.

Casey Stengel won a lot of pennants.

A Mercedes rear-ended me.

### INSTITUTION FOR PEOPLE RESPONSIBLE

Exxon has raised its prices again. You'll never get the *university* to agree to that. The Army wants to reinstitute the draft. The Senate thinks abortion is immoral. I don't approve of the government's actions.

### THE PLACE FOR THE INSTITUTION

The White House isn't saying anything.

Washington is insensitive to the needs of the people.

The Kremlin threatened to boycott the next round of SALT talks.

Paris is introducing longer skirts this season. Hollywood isn't what it used to be. Wall Street is in a panic.

THE PLACE FOR THE EVENT

Let's not let Thailand become another Vietnam.

Remember the Alamo.

Pearl Harbor still has an effect on our foreign policy Watergate changed our politics.

It's been Grand Central Station here all day.

ymy, where responsibility is what is focused on. relationship in the CONTROLLER FOR CONTROLLED metonas doing the bombing and hold him responsible for it. Again not only say "Nixon bombed Hanoi" but also think of him but via the CONTROLLER FOR CONTROLLED metonymy we this is possible because of the nature of the metonymic which is why the use of such a sentence is dehumanizing says "The ham sandwich wants his check," she is not both our thought and our action. Similarly, when a waitress of art, his technique, his role in art history, etc. We act with it in terms of its relation to the artist, that is, his conception conceptualize one thing by means of its relation to some-Nixon himself may not have dropped the bombs on Hanoi, interested in the person as a person but only as a customer, in which the Producer for Product metonymy affects reverence toward a Picasso, even a sketch he made as a thinking of a work of art alone, in and of itself. We think of our thoughts and actions. Metonymic concepts allow us to general metonymic concepts in terms of which we organize given above are not random. They are instances of certain same way that metaphoric concepts are. The sentences teen-ager, because of its relation to the artist. This is a way thing else. When we think of a Picasso, we are not just Metonymic concepts like these are systematic in the

Thus, like metaphors, metonymic concepts structure not just our language but our thoughts, attitudes, and actions. And, like metaphoric concepts, metonymic concepts are grounded in our experience. In fact, the grounding of metonymic concepts is in general more obvious than is the case with metaphoric concepts, since it usually involves direct physical or causal associations. The PART FOR

EK EIGHT

WHOLE metonymy, for example, emerges from our experiences with the way parts in general are related to wholes. PRODUCER FOR PRODUCT is based on the causal (and typically physical) relationship between a producer and his product. THE PLACE FOR THE EVENT is grounded in our experience with the physical-location of events. And so on.

Cultural and religious symbolism are special cases of metonymy. Within Christianity, for example, there is the metonymy dove for holy spirit. As is typical with metonymies, this symbolism is not arbitrary. It is grounded in the conception of the dove in Western culture and the conception of the Holy Spirit in Christian theology. There is a reason why the dove is the symbol of the Holy Spirit and not, say, the chicken, the vulture, or the ostrich. The dove is conceived of as beautiful, friendly, gentle, and, above all, peaceful. As a bird, its natural habitat is the sky, which metonymically stands for heaven, the natural habitat of the Holy Spirit. The dove is a bird that flies gracefully, glides silently, and is typically seen coming out of the sky and landing among people.

The conceptual systems of cultures and religions are metaphorical in nature. Symbolic metonymies are critical links between everyday experience and the coherent metaphorical systems that characterize religions and cultures. Symbolic metonymies that are grounded in our physical experience provide an essential means of comprehending religious and cultural concepts.

Challenges to Metaphorical Coherence

We have offered evidence that metaphors and metonymies are not random but instead form coherent systems in terms of which we conceptualize our experience. But it is easy to find apparent incoherences in everyday metaphorical expressions. We have not made a complete study of these, but those that we have looked at in detail have turned out not to be incoherent at all, though they appeared that way at first. Let us consider two examples.

## An Apparent Metaphorical Contradiction

Charles Fillmore has observed (in conversation) that English appears to have two contradictory organizations of time. In the first, the future is in front and the past is behind:

In the weeks ahead of us... (future) That's all behind us now. (past)

In the second, the future is behind and the past is in front:

In the following weeks... (future)
In the preceding weeks... (past)

This appears to be a contradiction in the metaphorical organization of time. Moreover, the apparently contradictory metaphors can mix with no ill effect, as in

We're looking ahead to the following weeks.

Here it appears that *ahead* organizes the future in front, while *following* organizes it behind.

To see that there is, in fact, a coherence here, we first

have to consider some facts about front-back organization. Some things, like people and cars, have inherent fronts and backs, but others, like trees, do not. A rock may receive a front-back organization under certain circumstances. Suppose you are looking at a medium-sized rock and there is a ball between you and the rock—say, a foot away from the rock. Then it is appropriate for you to say "The ball is in front of the rock." The rock has received a front-back orientation, as if it had a front that faced you. This is not universal. There are languages—Hausa, for instance—where the rock would receive the reverse orientation and you would say that the ball was behind the rock if it was between you and the rock.

Moving objects generally receive a front-back orientation so that the front is in the direction of motion (or in the canonical direction of motion, so that a car backing up retains its front). A spherical satellite, for example, that has no front while standing still, gets a front while in orbit by virtue of the direction in which it is moving.

Now, time in English is structured in terms of the TIME IS A MOVING OBJECT metaphor, with the future moving toward us:

The time will come when...

The time has long since gone when...

The time for action has arrived.

The proverb "Time flies" is an instance of the TIME IS A MOVING OBJECT metaphor. Since we are facing toward the future, we get:

Coming up in the weeks ahead...

look forward to the arrival of Christmas.

Before us is a great opportunity, and we don't want it to pass us by.

By virtue of the TIME IS A MOVING OBJECT metaphor, time receives a front-back orientation facing in the direction of motion, just as any moving object would. Thus the future is

facing toward us as it moves toward us, and we find expressions like:

I can't face the future.

The face of things to come...

Let's meet the future head-on.

Now, while expressions like ahead of us, I look forward, and before us orient times with respect to people, expressions like precede and follow orient times with respect to times. Thus we get:

Next week and the week following it.

but not:

The week following me...

Since future times are facing toward us, the times following them are further in the future, and all future times follow the present. That is why the weeks to follow are the same as the weeks ahead of us.

The point of this example is not merely to show that there is no contradiction but also to show all the subtle details that are involved: the TIME IS A MOVING OBJECT metaphor, the front-back orientation given to time by virtue of its being a moving object, and the consistent application of words like follow, precede, and face when applied to time on the basis of the metaphor. All of this consistent detailed metaphorical structure is part of our everyday literal language about time, so familiar that we would normally not notice it.

### Coherence versus Consistency

We have shown that the TIME IS A MOVING OBJECT metaphor has an internal consistency. But there is another way in which we conceptualize the passing of time:

TIME IS STATIONARY AND WE MOVE THROUGH IT

As we go through the years,...

Where are we?

As we go further into the 1980s,... We're approaching the end of the year.

What we have here are two subcases of TIME PASSES US: in one case, we are moving and time is standing still; in the other, time is moving and we are standing still. What is in common is relative motion with respect to us, with the future in front and the past behind. That is, they are two subcases of the same metaphor, as shown in the accompanying diagram.

From our point of view
time goes past us,
from front to back
from front to back

Time is a moving object
and moves toward us
Time is stationary and we direction of the future

This is another way of saying that they have a major common entailment. Both metaphors entail that, from our point of view, time goes past us from front to back.

Although the two metaphors are not consistent (that is, they form no single image), they nonetheless "fit together," by virtue of being subcategories of a major category and therefore sharing a major common entailment. There is a difference between metaphors that are coherent (that is, "fit together") with each other and those that are consistent. We have found that the connections between metaphors are more likely to involve coherence than consistency.

As another example, let us take another metaphor:

LOVE IS A JOURNEY

Look how far we've come.

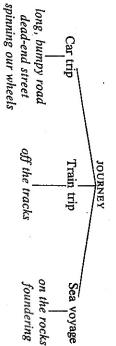
We're at a crossroads.
We'll just have to go our separate ways.

We can't turn back now.

I don't think this relationship is going anywhere.

We're stuck.
It's been a long, bumpy road.
This relationship is a dead-end street.
We're just spinning our wheels.
Our marriage is on the rocks.
We've gotten off the track.
This relationship is foundering.

Here the basic metaphor is that of a JOURNEY, and there are various types of journeys that one can make: a car trip, a train trip, or a sea voyage.



Once again, there is no single consistent image that the JOURNEY metaphors all fit. What makes them coherent is that they are all JOURNEY metaphors, though they specify different means of travel. The same sort of thing occurs with the TIME IS A MOVING OBJECT metaphor, where there are various ways in which something can move. Thus, time flies, time creeps along, time speeds by. In general, metaphorical concepts are defined not in terms of concrete images (flying, creeping, going down the road, etc.), but in terms of more general categories, like passing.

SOME FURTHER EXAMPLES

We have been claiming that metaphors partially structure our everyday concepts and that this structure is reflected in our literal language. Before we can get an overall picture of the philosophical implications of these claims, we need a few more examples. In each of the ones that follow we give a metaphor and a list of ordinary expressions that are special cases of the metaphor. The English expressions are of two sorts: simple literal expressions and idioms that fit the metaphor and are part of the normal everyday way of talking about the subject.

## THEORIES (and ARGUMENTS) ARE BUILDINGS

Is that the foundation for your theory? The theory needs more support. The argument is shaky. We need some more facts or the argument will fall apart. We need to construct a strong argument for that. I haven't figured out yet what the form of the argument will be. Here are some more facts to shore up the theory. We need to buttress the theory with solid arguments. The theory will stand or fall on the strength of that argument. The argument collapsed. They exploded his latest theory. We will show that theory to be without foundation. So far we have put together only the framework of the theory.

#### IDEAS ARE FOOD

What he said left a bad taste in my mouth. All this paper has in it are raw facts, half-baked ideas, and warmed-over theories. There are too many facts here for me to digest them all. I just can't swallow that claim. That argument smells fishy. Let me stew over that for a while. Now there's a theory

you can really sink your teeth into. We need to let that idea percolate for a while. That's food for thought. He's a voracious reader. We don't need to spoon-feed our students. He devoured the book. Let's let that idea simmer on the back burner for a while. This is the meaty part of the paper. Let that idea jell for a while. That idea has been fermenting for

With respect to life and death IDEAS ARE ORGANISMS, either PEOPLE OF PLANTS.

#### IDEAS ARE PEOPLE

The theory of relativity gave birth to an enormous number of ideas in physics. He is the father of modern biology. Whose brainchild was that? Look at what his ideas have spawned. Those ideas died off in the Middle Ages. His ideas will live on forever. Cognitive psychology is still in its infancy. That's an idea that ought to be resurrected. Where'd you dig up that idea? He breathed new life into that idea.

#### IDEAS ARE PLANTS

His ideas have finally come to fruition. That idea died on the vine. That's a budding theory. It will take years for that idea to come to full flower. He views chemistry as a mere offshoot of physics. Mathematics has many branches. The seeds of his great ideas were planted in his youth. She has a fertile imagination. Here's an idea that I'd like to plant in your mind. He has a barren mind.

### IDEAS ARE PRODUCTS

We're really turning (churning, cranking, grinding) out new ideas. We've generated a lot of ideas this week. He produces new ideas at an astounding rate. His intellectual productivity has decreased in recent years. We need to take the rough edges off that idea, hone it down, smooth it out. It's a rough idea; it needs to be refined.

### IDEAS ARE COMMODITIES

It's important how you package your ideas. He won't buy that. That idea just won't sell. There is always a market for good ideas. That's a worthless idea. He's been a source of

valuable ideas. I wouldn't give a plugged nickel for that idea. Your ideas don't have a chance in the intellectual marketplace.

### IDEAS ARE RESOURCES

He ran out of ideas. Don't waste your thoughts on small projects. Let's pool our ideas. He's a resourceful man. We've used up all our ideas. That's a useless idea. That idea will go a long way.

#### IDEAS ARE MONEY

Let me put in my two cents' worth. He's rich in ideas. That book is a treasure trove of ideas. He has a wealth of ideas.

### IDEAS ARE CUTTING INSTRUMENTS

That's an incisive idea. That cuts right to the heart of the matter. That was a cutting remark. He's sharp. He has a razor wit. He has a keen mind. She cut his argument to ribbons.

### IDEAS ARE FASHIONS

That idea went out of style years ago. I hear sociobiology is in these days. Marxism is currently fashionable in western Europe. That idea is old hat! That's an outdated idea. What are the new trends in English criticism? Old-fashioned notions have no place in today's society. He keeps up-to-date by reading the New York Review of Books. Berkeley is a center of avant-garde thought. Semiotics has become quite chic. The idea of revolution is no longer in vogue in the United States. The transformational grammar craze hit the United States in the mid-sixties and has just made it to Europe.

### UNDERSTANDING IS SEEING; IDEAS ARE LIGHT-SOURCES; DIS-COURSE IS A LIGHT-MEDIUM

I see what you're saying. It looks different from my point of view. What is your outlook on that? I view it differently. Now I've got the whole picture. Let me point something out to you. That's an insightful idea. That was a brilliant remark. The argument is clear. It was a murky discussion. Could you elucidate your remarks? It's a transparent argument. The discussion was opaque.

LOVE IS A PHYSICAL FORCE (ELECTROMAGNETIC, GRAVITATIONAL, etc.)

I could feel the *electricity* between us. There were *sparks*. I was *magnetically drawn* to her. They are uncontrollably *attracted* to each other. They *gravitated* to each other immediately. His whole life *revolves* around her. The *atmosphere* around them is always *charged*. There is incredible *energy* in their relationship. They lost their *momentum*.

#### LOVE IS A PATIENT

This is a sick relationship. They have a strong, healthy marriage. The marriage is dead—it can't be revived. Their marriage is on the mend. We're getting back on our feet. Their relationship is in really good shape. They've got a listless marriage. Their marriage is on its last legs. It's a tired affair.

#### LOVE IS MADNESS

I'm crazy about her. She drives me out of my mind. He constantly raves about her. He's gone mad over her. I'm just wild about Harry. I'm insane about her.

#### LOVE IS MAGIC

She cast her spell over me. The magic is gone. I was spellbound. She had me hypnotized. He has me in a trance. I was entranced by him. I'm charmed by her. She is bewitching.

#### LOVE IS WAR

He is known for his many rapid conquests. She fought for him, but his mistress won out. He fled from her advances. She pursued him relentlessly. He is slowly gaining ground with her. He won her hand in marriage. He overpowered her. She is besieged by suitors. He has to fend them off. He enlisted the aid of her friends. He made an ally of her mother. Theirs is a misalliance if I've ever seen one.

### WEALTH IS A HIDDEN OBJECT

He's seeking his fortune. He's flaunting his new-found wealth. He's a fortune-hunter. She's a gold-digger. He lost his fortune. He's searching for wealth.

### SIGNIFICANT IS BIG

He's a big man in the garment industry. He's a giant among writers. That's the biggest idea to hit advertising in years. He's head and shoulders above everyone in the industry. It was only a small crime. That was only a little white lie. I was astounded at the enormity of the crime. That was one of the greatest moments in World Series history. His accomplishments tower over those of lesser men.

### SEEING IS TOUCHING; EYES ARE LIMBS

I can't take my eyes off her. He sits with his eyes glued to the TV. Her eyes picked out every detail of the pattern. Their eyes met. She never moves her eyes from his face. She ran her eyes over everything in the room. He wants everything within reach of his eyes.

## THE EYES ARE CONTAINERS FOR THE EMOTIONS

I could see the fear in his eyes. His eyes were filled with anger. There was passion in her eyes. His eyes displayed his compassion. She couldn't get the fear out of her eyes. Love showed in his eyes. Her eyes welled with emotion.

## EMOTIONAL EFFECT IS PHYSICAL CONTACT

His mother's death hit him hard. That idea bowled me over. She's a knockout. I was struck by his sincerity. That really made an impression on me. He made his mark on the world. I was touched by his remark. That blew me away.

# PHYSICAL AND EMOTIONAL STATES ARE ENTITIES WITHIN A PERSON

He has a pain in his shoulder. Don't give me the flu. My cold has gone from my head to my chest. His pains went away. His depression returned. Hot tea and honey will get rid of your cough. He could barely contain his joy. The smile left his face. Wipe that sneer off your face, private! His fears keep coming back. I've got to shake off this depression—it keeps hanging on. If you've got a cold, drinking lots of tea will flush it out of your system. There isn't a trace of cowardice in him. He hasn't got an honest bone in his body.

### VITALITY IS A SUBSTANCE

She's brimming with vim and vigor. She's overflowing with vitality. He's devoid of energy. I don't have any energy left at the end of the day. I'm drained. That took a lot out of me.

### LIFE IS A CONTAINER

I've had a full life. Life is empty for him. There's not much left for him in life. Her life is crammed with activities. Get the most out of life. His life contained a great deal of sorrow. Live your life to the fullest.

### LIFE IS A GAMBLING GAME

I'll take my chances. The odds are against me. I've got an ace up my sleeve. He's holding all the aces. It's a toss-up. If you play your cards right, you can do it. He won big. He's a real loser. Where is he when the chips are down? That's my ace in the hole. He's bluffing. The president is playing it close to his vest. Let's up the ante. Maybe we need to sweeten the pot. I think we should stand pat. That's the luck of the draw. Those are high stakes.

our chances," you would not be viewed as speaking ation would be metaphorically structured. talking about, conceiving, and even experiencing your situ appropriate to the situation. Nevertheless, your way of metaphorically but as using the normal everyday language you say "The odds are against us" or "We'll have to take speak of life, not of gambling situations. They are normal GAMBLING GAME metaphor, they are typically used to cept. Although each of them is an instance of the LIFE IS A sions," or "phrasal lexical items." These function in many what are called "speech formulas," or "fixed-form expresliteral expressions structured by metaphorical concepts. If in this sense that we include them in what we have called "construct" is a normal way of talking about theories. It is ways of talking about life situations, just as using the word ways like single words, and the language has thousands of them. In the examples given, a set of such phrasal lexical items is coherently structured by a single metaphorical con-In this last group of examples we have a collection of

### The Partial Nature of Metaphorical Structuring

structure the concept THEORY. metaphorical concept THEORIES ARE BUILDINGS is used to main (THEORY) will depend on the details of how the tion, for example, means in the metaphorically defined dometaphorically defined domain (THEORIES). What founda-INGS) to talk about corresponding concepts in the pressions (construct, foundation) from one domain (BUILD-THEORIES ARE BUILDINGS, it is possible for us to use exsuch as "to be without foundation." Because concepts are metaphorically structured in a systematic way, e.g., phrasal lexicon, which contains fixed-form expressions and is reflected in the lexicon of the language, including the metaphorical structuring of concepts is necessarily partial of metaphorically defined concepts. Such concepts are (e.g., TIME IS MONEY, TIME IS A MOVING OBJECT, etc.). The understood in terms of a number of different metaphors Up to this point we have described the systematic character

such a metaphorical concept and are part of our ordinary construct and foundation are instances of the used part of a "used" part (foundation and outer shell) and an "unliteral language about theories. used" part (rooms, staircases, etc.). Expressions such as outer shell. The roof, internal rooms, staircases, and hall-THEORY. Thus the metaphor THEORIES ARE BUILDINGS has ways are parts of a building not used as part of the concept structure the concept THEORY are the foundation and the The parts of the concept BUILDING that are used to

But what of the linguistic expressions that reflect the

"unused" part of a metaphor like THEORIES ARE BUILD-INGS? Here are four examples:

His theory has thousands of little rooms and long, winding corridors.

His theories are Bauhaus in their pseudofunctional simplicity.

He prefers massive Gothic theories covered with gargoyles. Complex theories usually have problems with the plumbing.

of the same general metaphor (THEORIES ARE BUILDINGS). or "imaginative" language. Thus, literal expressions ("He language and are part of what is usually called "figurative" has constructed a theory") and imaginative expressions ("His theory is covered with gargoyles") can be instances These sentences fall outside the domain of normal literal

maginative (or nonliteral) metaphor: Here we can distinguish three different subspecies of

ings metaphor stops short of mentioning the materials used. the building is referred to, whereas the THEORIES ARE BUILDare the bricks and mortar of my theory." Here the outer shell of Extensions of the used part of a metaphor, e.g., "These facts

theory has thousands of little rooms and long, winding cor-Instances of the unused part of the literal metaphor, e.g., "His

ceptual system of a metaphorical concept that structures our normal concessantly." Each of these subspecies lies outside the used part structure part of our normal conceptual system but as a new patriarchs who father many children, most of whom fight inway of thinking about something, e.g., "Classical theories are Instances of novel metaphor, that is, a metaphor not used to

A MOVING OBJECT, CONTROL IS UP, IDEAS ARE FOOD, THEORIES ARE BUILDINGS, etc. None of these is literal. This cepts are figurative. Examples are TIME IS MONEY, TIME IS we have given to characterize general metaphorical con-We note in passing that all of the linguistic expressions

is a consequence of the fact that only *part* of them is used to structure our normal concepts. Since they necessarily contain parts that are not used in our normal concepts, they go beyond the realm of the literal.

extended to their unused part in coining novel metaphorical of them is used. This makes them relatively uninteresting expression of the language, and they do not systematically for our purposes but not completely so, since they can be conquering, fighting, and even being killed by a mountain. der of a mountain (namely, a ridge near the top) and of interact with other metaphorical concepts because so little their used part may consist of only one conventionally fixed PERSON, that are marginal in our culture and our language here is that there are metaphors, like a MOUNTAIN IS A come animate and their peaks become heads. The point And there are cartoon conventions where mountains be-PERSON in which mountain climbers will speak of the shoulfact, there is an aspect of the metaphor A MOUNTAIN IS A metaphorical expressions based on these unused parts. In though in special contexts it is possible to construct novel speak of the head, shoulders, or trunk of a mountain, MOUNTAIN IS A PERSON. In normal discourse we do not foot of the mountain is the only used part of the metaphor A expressions like the foot of the mountain, a head of cabexpressions that stand alone and are not used systematinstance of a used part (or maybe two or three). Thus the vention. In addition to these cases, which are parts of whole and phrasal lexical items in the language, are fixed by coninstances of metaphorical concepts, where there is only one bage, the leg of a table, etc. These expressions are isolated ically in our language or thought. These are well-known metaphorical systems, there are idiosyncratic metaphorical living and thinking. These expressions, like all other words metaphorical concepts—concepts that we constantly use in theory, attack an idea) is used within a whole system of about so far (e.g., the time will come; we construct a Each of the metaphorical expressions we have talked

> expressions, making jokes, etc. And our ability to extend them to unused parts indicates that, however marginal they are, they do exist.

Examples like the foot of the mountain are idiosyncratic, unsystematic, and isolated. They do not interact with other metaphors, play no particularly interesting role in our conceptual system, and hence are not metaphors that we live by. The only signs of life they have is that they can be extended in subcultures and that their unused portions serve as the basis for (relatively uninteresting) novel metaphors. If any metaphorical expressions deserve to be called "dead," it is these, though they do have a bare spark of life, in that they are understood partly in terms of marginal metaphorical concepts like a MOUNTAIN IS A PERSON.

It is important to distinguish these isolated and unsystematic cases from the systematic metaphorical expressions we have been discussing. Expressions like wasting time, attacking positions, going our separate ways, etc., are reflections of systematic metaphorical concepts that structure our actions and thoughts. They are "alive" in the most fundamental sense: they are metaphors we live by. The fact that they are conventionally fixed within the lexicon of English makes them no less alive.

### How Is Our Conceptual System Grounded?

anything at all? directly, without metaphor? If not, how can we understand system. Are there any concepts at all that are understood important question about the grounding of our conceptual metaphorically structured; that is, most concepts are partially understood in terms of other concepts. This raises an We claim that most of our normal conceptual system is

of our spatial concepts emerges from our constant spatial structurings of space-for us. In other words, the structure functioning, and this gives them priority over other possible these that are relevant to our continual everyday bodily clude UP-DOWN, FRONT-BACK, IN-OUT, NEAR-FAR, etc. It is down orientation. Human spatial concepts, however, in-Cartesian coordinates, that don't in themselves have upmany possible frameworks for spatial orientation, including one think that there could be no alternative to this orientaour motor programs and everyday functioning might make centrally relevant. The centrality of up-down orientation in orientation not merely relevant to our physical activity but tional concept. Objectively speaking, however, there are in the world, even when we sleep, makes an up-down up-down orientation, maintains it, presupposes it, or takes it into account in some way. Our constant physical activity spatial concept UP arises out of our spatial experience. We we make involves a motor program that either changes our have bodies and we stand erect. Almost every movement directly are the simple spatial concepts, such as UP. Our The prime candidates for concepts that are understood

> experience, that is, our interaction with the physical environment. Concepts that emerge in this way are concepts that we live by in the most fundamental way.

would depend, not only on the physiology of this spherical possibly mean to such a being? The answer to this question gravitational field we live in. Imagine a spherical being livemerges from the collection of constantly performed motor being, but also on its culture. imagination of any other kind of experience. What could UP ing outside any gravitational field, with no knowledge or functions having to do with our erect position relative to the Thus UP is not understood purely in its own terms but

already present in the very experience itself. experience our "world" in such a way that our culture is that all experience is cultural through and through, that we conceptual overlay which we may or may not place upon sort; rather, every experience takes place within a vast experience as we choose. It would be more correct to say which we then "interpret" in terms of our conceptual sysence" is never merely a matter of having a body of a certain tem. Cultural assumptions, values, and attitudes are not a though there were some core of immediate experience ing, therefore, to speak of direct physical experience as background of cultural presuppositions. It can be mislead-In other words, what we call "direct physical experi-

ence in what follows, it is in this sense that we use the cultural, such as participating in a wedding ceremony. physical, such as standing up, and those that are "more" volves cultural presuppositions, we can still make the im-When we speak of "physical" versus "cultural" experiportant distinction between experiences that are "more" However, even if we grant that every experience in-

DARK, WARM-COLD, MALE-FEMALE, etc.—are more sharply bodies function-UP-DOWN, IN-OUT, FRONT-BACK, LIGHTdelineated than others. While our emotional experience is Some of the central concepts in terms of which our

as basic as our spatial and perceptual experience, our emotional experiences are much less sharply delineated in terms tional experiences are much less sharply delineated in terms of what we do with our bodies. Although a sharply delineated conceptual structure for space emerges from our perceptual-motor functioning, no sharply defined conceptual structure for the emotions emerges from our emotional functioning alone. Since there are systematic corretional functioning alone. Since there are systematic corretional functioning alone (like happiness) and our lates between our emotions (like erect posture), these form sensory-motor experiences (like erect posture), these form sensory is up). Such metaphorical concepts (such as the basis of orientational metaphorical conceptualize HAPPY IS UP). Such metaphors allow us to conceptualize our emotions in more sharply defined terms and also to our emotions in more sharply defined terms and also to relate them to other concepts having to do with general relate them to other concepts having to do with general relate them to sharply defined terms and emergent sense, we can speak of emergent metaphors and emergent

For example, the concepts object, substance, and containers entities, separate from the rest of the world—as containers with an inside and an outside. We also experience things with an inside and an outside. We also experience things external to us as entities—often also as containers with inexternal to us as entities—often also as containers with inexternal objects as being made up of substances—e.g., flesh and bone—and external objects as being made up of various kinds of substances—jects as being made up of various kinds of substances—jects as being made up of various kinds of substances—wood, stone, metal, etc. We experience many things, through sight and touch, as having distinct boundaries, and, through sight and touch, as having distinct boundaries, and, then things have no distinct boundaries, we often project when things have no distinct boundaries, clearings, and often as containers (for example, forests, clearings, and often as containers (for example, forests, clearings,

As in the case of orientational metaphors, basic ontological metaphors are grounded by virtue of systematic correcal metaphors are grounded by virtue of systematic correlates within our experience. As we saw, for example, the metaphor the visual field is a container is grounded in the correlation between what we see and a bounded physical space. The time is a moving object metaphor is based on the correlation between an object moving toward us and

the time it takes to get to us. The same correlation is a basis for the TIME IS A CONTAINER metaphor (as in "He did it in ten minutes"), with the bounded space traversed by the object correlated with the time the object takes to traverse it. Events and actions are correlated with bounded time spans, and this makes them CONTAINER OBJECTS.

Experience with physical objects provides the basis for metonymy. Metonymic concepts emerge from correlations in our experience between two physical entities (e.g., PART FOR WHOLE, OBJECT FOR USER) or between a physical entity and something metaphorically conceptualized as a physical entity (e.g., THE PLACE FOR THE EVENT, THE INSTITUTION FOR THE PERSON RESPONSIBLE).

Perhaps the most important thing to stress about grounding is the distinction between an experience and the way we conceptualize it. We are not claiming that physical experience is in any way more basic than other kinds of experience, whether emotional, mental, cultural, or whatever. All of these experiences may be just as basic as physical experiences. Rather, what we are claiming about grounding is that we typically conceptualize the nonphysical in terms of the physical—that is, we conceptualize the less clearly delineated in terms of the more clearly delineated. Consider the following examples:

Harry is in the kitchen.
Harry is in the Elks.
Harry is in love.

The sentences refer to three different domains of experience: spatial, social, and emotional. None of these has experiential priority over the others; they are all equally basic kinds of experience.

But with respect to conceptual structuring there is a difference. The concept in of the first sentence emerges directly from spatial experience in a clearly delineated fashion. It is not an instance of a metaphorical concept. The other two sentences, however, are instances of metaphori-

equally basic. it is possible to have equally basic kinds of experiences "in." We have one emergent concept IN, one word for it, cept in are the same in all three examples; we do not have allows us to "get a handle on" the concept of a social group concept of a social group is structured. This metaphor GROUPS ARE CONTAINERS metaphor, in terms of which the cal concepts. The second is an instance of the SOCIAL groups and emotional states. What these cases show is that and two metaphorical concepts that partially define social while having conceptualizations of them that are not by means of a spatialization. The word "in" and the conthree different concepts of IN or three homophonous words

The Grounding of Structural Metaphors

highly structured and clearly delineated concept to structure much more than just orient concepts, refer to them, quantify of such elaboration. Structural metaphors allow us to do logical metaphors; they allow us, in addition, to use one them, etc., as we do with simple orientational and ontoas RATIONAL ARGUMENT IS WAR) provide the richest source aspects of it and hiding others. Structural metaphors (such but also to find appropriate means for highlighting some elaborate a concept (like the MIND) in considerable detail in much more specific terms. This allows us not only to tion metaphors, we can elaborate spatialization metaphors MIND IS A MACHINE metaphor and the various personificadoes not say very much about it. But, as we saw with the is viewed as a CONTAINER OBJECT with an IN-OUT orientation cate—are not in themselves very rich. To say that something not function in the world—could not reason or communithing in our conceptual system and without which we could in-out, object, substance, etc.—which are as basic as any-Metaphors based on simple physical concepts—up-down,

Fighting is found everywhere in the animal kingdom and we understand more readily, namely, physical conflict ize what a rational argument is in terms of something that might be grounded. This metaphor allows us to conceptualexamine how the RATIONAL ARGUMENT IS WAR metaphor our experience. To see what this means in detail, let us metaphors are grounded in systematic correlations within Like orientational and ontological metaphors, structural

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or who want to stop them from getting it. The same is true get what they want-food, sex, territory, control, etc .-nowhere so much as among human animals. Animals fight to sophisticated techniques for getting our way. Being "raof human animals, except that we have developed more effective means of carrying it out, its basic structure remains have employed many of our finest minds to develop more number of ways, one of them being war. Even though we tional animals," we have institutionalized our fighting in a because there are other animals who want the same thing essentially unchanged. In fights between two brute animals, have over the ages institutionalized physical conflict and and surrendering. Human fighting involves the same practerritory, attacking, defending, counterattacking, retreating, for the sake of intimidation, of establishing and defending scientists have observed the practices of issuing challenges

and sometimes these "degenerate" into physical violence. arguments all the time in order to try to get what we want, evolved the social institution of verbal argument. We have actual physical conflict. As a result, we humans have what you want without subjecting yourself to the dangers of Such verbal battles are comprehended in much the same of them wants, such as getting the other to accept a certain stance. Husband and wife are both trying to get what each gaining, flattering, and even trying to give "rational reainsult, belittling, challenging authority, evading issues, barat your disposal-intimidation, threat, invoking authority, counterattack, etc., using whatever verbal means you have defend. In a no-holds-barred argument, you attack, defend, and something to lose, territory to establish and territory to viewpoint. Each sees himself as having something to win viewpoint on some issue or at least to act according to that terms as physical battles. Take a domestic quarrel, for insons." But all of these tactics can be, and often are, presented as reasons; for example: Part of being a rational animal, however, involves getting

have been arguing from the time you began to talk, you still conceive of arguments, and execute them, according to the gument but the way we carry it out is grounded in our knowledge and experience of physical combat. Even if you have never fought a fistfight in you life, much less a war, but

The point here is that not only our conception of an ar-

... because I'm bigger than you. (intimidation)

... because if you don't, I'll ... (threat)

... because I'm the boss. (authority)

... because you're stupid. (insult)

... because you usually do it wrong. (belittling)

...because I have as much right as you do. (challenging authority)

... because I love you. (evading the issue)

... because if you will..., I'll... (bargaining)

... because you're so much better at it. (flattery)

successful, you can wipe him out. argument you try to shoot down. If you are completely whose position you attack and try to destroy and whose and defended, you can win or lose, you have an opponent in terms of WAR. There is still a position to be established RATIONAL ARGUMENT is still comprehended and carried out evidence, and the drawing of logical conclusions. But even supposedly the stating of premises, the citing of supporting only permissible tactics in this RATIONAL ARGUMENT are claim to present an ideal, or "higher," form of RATIONAL in the most ideal cases, where all of these conditions hold, ARGUMENT, in which all of these tactics are forbidden. The world, the ecclesiastical world, and the world of journalism fair." The academic world, the legal world, the diplomatic where such tactics are, at least in principle, frowned upon daily lives, we sometimes don't notice them. However, because they are considered to be "irrational" and "unthere are important and powerful segments of our culture in our culture, and because they are so much a part of our Arguments that use tactics like these are the most common

ARGUMENT IS WAR metaphor because the metaphor is built conceived of in terms of war, but almost all of them conto actually live up to the ideal of RATIONAL ARGUMENT Not only are all the "rational" arguments that are assumed into the conceptual system of the culture in which you live. tain, in hidden form, the "irrational" and "unfair" tactics transcend. Here are some typical examples: that rational arguments in their ideal form are supposed to

It is plausible to assume that ... (intimidation)

Clearly,...

Obviously,...

To say that would be to commit the Fallacy of... It would be unscientific to fail to . . . (threat)

As Descartes showed, ... (authority)

Hume observed that...

Footnote 374: cf. Verschlugenheimer, 1954

The work lacks the necessary rigor for ... (insult) Let us call such a theory "Narrow" Rationalism.

In a display of "scholarly objectivity," ...

The work will not lead to a formalized theory. (belittling)

His results cannot be quantified.

Few people today seriously hold that view.

Lest we succumb to the error of positivist approaches,...

(challenging authority)

Behaviorism has led to...

He does not present any alternative theory. (evading the issue)

The author does present some challenging facts, although ... But that is a matter of...

Your position is right as far as it goes, ... (bargaining) If one takes a realist point of view, one can accept the claim

In his stimulating paper, ... (flattery)

His paper raises some interesting issues...

everyday arguing) to its origins in physical combat. The rational argument back through "irrational" argument (= Examples like these allow us to trace the lineage of our

> war metaphor. describe our arguments is grounded in the ARGUMENT IS hold by haggling, the way we conceive of, carry out, and whether we are just trying to get our way in our own houseor legal setting, aspiring to the ideal of rational argument, or guing and in war. Whether we are in a scientific, academic, as present in rational argument as they are in everyday arthough couched, perhaps, in more refined phrases, are just tactics of intimidation, threat, appeal to authority, etc.,

pose is served. To summarize: cases, the material gets used up progressively as the purquantified and given a value. In both cases, it is the kind of a finished product. Raw materials typically go directly into house as long as they are the right kind of coal. In both doesn't matter which particular pieces of coal heat your that is important for achieving the purpose. For example, it material as opposed to the particular piece or quantity of it products. In both cases, the material resources can be for heating, transportation, or the energy used in producing are viewed as serving purposeful ends. Fuel may be used sources are typically raw materials or sources of fuel. Both in our experience with material resources. Material re-RESOURCE. Both of these metaphors are culturally grounded important in our lives: LABOR IS A RESOURCE and TIME IS A Let us now consider other structural metaphors that are

A material resource is a kind of substance can be assigned a value per unit quantity is used up progressively as it serves its serves a purposeful end can be quantified fairly precisely purpose

amount of product—we can assign value to the labor in more labor you perform, the more you produce. Assuming material. It takes a certain amount of labor. In general, the that this is true—that the labor is proportional to the Take the simple case where you make a product from raw

perfect model of this is the assembly line, where the raw material comes in at one end, labor is performed in progressive stages, whose duration is fixed by the speed of the line itself, and products come out at the other end. This provides a grounding for the LABOR IS RESOURCE metaphor, as follows:

LABOR is a kind of activity (recall: AN ACTIVITY IS A SUB-

can be quantified fairly precisely (in terms of time) can be assigned a value per unit serves a purposeful end is used up progressively as it serves it purpose

Since labor can be quantified in terms of time and usually is, in an industrial society, we get the basis for the TIME IS A RESOURCE metaphor:

TIME is a kind of (abstract) SUBSTANCE can be quantified fairly precisely can be assigned a value per unit serves a purposeful end is used up progressively as it serves its purpose

When we are living by the metaphors LABOR IS A RESOURCE and TIME IS A RESOURCE, as we do in our culture, we tend not to see them as metaphors at all. But, as the above account of their grounding in experience shows, both are structural metaphors that are basic to Western industrial

These two complex structural metaphors both employ These two complex structural metaphors both employ simple ontological metaphors. LABOR IS A RESOURCE USES AN ACTIVITY IS A SUBSTANCE. TIME IS A RESOURCE USES TIME IS A SUBSTANCE. These two SUBSTANCE metaphors permit labor and time to be quantified—that is, measured, conceived of as being progressively "used up," and assigned monetary values; they also allow us to view time and labor as things that can be "used" for various ends.

LABOR IS A RESOURCE and TIME IS A RESOURCE are by no means universal. They emerged naturally in our culture because of the way we view work, our passion for quantification, and our obsession with purposeful ends. These metaphors highlight those aspects of labor and time that are centrally important in our culture. In doing this, they also deemphasize or hide certain aspects of labor and time. We can see what both metaphors hide by examining what they focus on.

In viewing labor as a *kind* of activity, the metaphor assumes that labor can be clearly identified and distinguished from things that are not labor. It makes the assumptions that we can tell work from play and productive activity from nonproductive activity. These assumptions obviously fail to fit reality much of the time, except perhaps on assembly lines, chain gangs, etc. The view of labor as merely a *kind* of activity, independent of who performs it, how he experiences it, and what it means in his life, hides the issues of whether the work is personally meaningful, satisfying, and humane.

The quantification of labor in terms of time, together with the view of time as serving a purposeful end, induces a notion of LEISURE TIME, which is parallel to the concept LABOR TIME. In a society like ours, where inactivity is not considered a purposeful end, a whole industry devoted to leisure activity has evolved. As a result, LEISURE TIME becomes a RESOURCE too—to be spent productively, used wisely, saved up, budgeted, wasted, lost, etc. What is hidden by the RESOURCE metaphors for labor and time is the way our concepts of LABOR and TIME affect our concept of LEISURE, turning it into something remarkably like LABOR.

The RESOURCE metaphors for labor and time hide all sorts of possible conceptions of labor and time that exist in other cultures and in some subcultures of our own society: the idea that work can be play, that inactivity can be productive, that much of what we classify as LABOR serves either no clear purpose or no worthwhile purpose.

The three structural metaphors we have considered in

we experience collectively and what they hide corresponds tural basis. They emerged naturally in a culture like ours SOURCE, and TIME IS A RESOURCE—all have a strong culthis section—RATIONAL ARGUMENT IS WAR, LABOR IS A REand cultural experience; they also influence our experience to so little. But not only are they grounded in our physical because what they highlight corresponds so closely to what and our actions.

### Causation: Partly Emergent and Partly Metaphorical

a directly emergent core that is elaborated metaphorically. emergent or purely metaphorical. Rather, it appears to have case. Even a concept as basic as CAUSATION is not purely every concept must be one or the other. This is not the emergent and metaphorically emergent concepts and that seem as if there were a clear distinction between directly cepts based on our experience (like THE VISUAL FIELD IS A limited range of examples we have considered, it might CONTAINER, AN ACTIVITY IS A CONTAINER, etc.). From the JECT, SUBSTANCE, etc.) and emergent metaphorical condirectly emergent concepts (like up-down, in-out, ob-We have seen in our discussion of grounding that there are

### Direct Manipulation: The Prototype of Causation

suming that basic concepts are undecomposable primitives. the standard theories are fundamentally mistaken in astaken to be such an ultimate building block. We believe that blocks" of meaning. The concept of causation is often tives. Such primitives are taken to be the ultimate "building plex concepts can be analyzed into undecomposable primi-Standard theories of meaning assume that all of our com-

suggest instead that causation is best understood as an one of the concepts most often used by people to organize that it is an undecomposable primitive. We would like to their physical and cultural realities. But this does not mean We agree that causation is a basic human concept. It is

CAUSATION

experiential gestalt. A proper understanding of causation requires that it be viewed as a cluster of other components. But the cluster forms a gestalt—a whole that we human beings find more basic than the parts.

We can see this most clearly in infants. Piaget has hypothesized that infants first learn about causation by realizing that they can directly manipulate objects around them—pull off their blankets, throw their bottles, drop toys. There is, in fact, a stage in which infants seem to "practice" these manipulations, e.g., they repeatedly drop their spoons. Such direct manipulations, even on the part of infants, involve certain shared features that characterize constant everyday functioning in our environment—as when we flip light switches, button our shirts, open doors, etc. Though each of these actions is different, the overmay call a "prototypical" or "paradigmatic" case of direct causation. These shared features include:

The agent has as a goal some change of state in the patient.

The change of state is physical.

The agent has a "plan" for carrying out this goal.

The plan requires the agent's use of a motor program

The agent is in control of that motor program.

The agent is primarily responsible for carrying out the plan. The agent is the energy source (i.e., the agent is directing his energies toward the patient), and the patient is the energy goal (i.e., the change in the patient is due to an external source of

The agent touches the patient either with his body or an instrument (i.e., there is a spatiotemporal overlap between what the agent does and the change in the patient).

The agent successfully carries out the plan.

The change in the patient is perceptible.

The agent monitors the change in the patient through sensory percention.

There is a single specific agent and a single specific patient.

This set of properties characterizes "prototypical" direct manipulations, and these are cases of causation par excellence. We are using the word "prototypical" in the sense Rosch uses it in her theory of human categorization (1977). Her experiments indicate that people categorize objects, not in set-theoretical terms, but in terms of prototypes and family resemblances. For example, small flying singing birds, like sparrows, robins, etc., are prototypical birds. Chickens, ostriches, and penguins are birds but are not central members of the category—they are nonprototypical birds. But they are birds nonetheless, because they bear sufficient family resemblances to the prototype; that is, they share enough of the relevant properties of the prototype to be classified by people as birds.

mote in space and time from the patient's change, and if there were multiple agents, if what the agents did was recharacterize what happens as causation. For example, if cient family resemblance to the prototype, we cease to plan, goal, and motor activity, and all of the peculiarly and patient are events, a physical law takes the place of of the motor program, etc. (In physical causation the agent rence of two or more agents, involuntary or uncontrolled use man agency, the use of an intermediate agent, the occurevents that bear sufficient family resemblances to the proof causation, which are less prototypical, are actions or erties characterizing prototypical causations. Other kinds category of causation emerges with this complex of prophuman aspects are factored out.) When there is an insuffitotype. These would include action at a distance, nonhuour experience than their separate occurrence. Through complex of properties occurring together is more basic to our daily lives. We experience them as a gestalt; that is, the gether over and over in action after action as we go through their constant recurrence in our everyday functioning, the totype of causation in the following sense. They recur to-The twelve properties given above characterize a pro-

CAUSATION

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there were neither desire nor plan nor control, then we probably wouldn't say that this was an instance of causation, or at least we would have questions about it.

Although the category of causation has fuzzy boundaries, it is clearly delineated in an enormous range of instances. Our successful functioning in the world involves the application of the concept of causation to ever new domains of activity—through intention, planning, drawing inferences, activity—the concept is stable because we continue to function etc. The concept is stable because we continue to function successfully in terms of it. Given a concept of causation that emerges from our experience, we can apply that contept to metaphorical concepts. In "Harry raised our morale by telling jokes," for example, we have an instance of causation where what Harry did made our morale go UP, as in the happy is up metaphor.

Though the concept of causation as we have characterized it is basic to human activity, it is not a "primitive" in the usual building-block sense, that is, it is not unanalyzable and undecomposable. Since it is defined in terms of a prototype that is characterized by a recurrent complex of properties, our concept of causation is at once holistic, analyzable into those properties, and capable of a wide range of variation. The terms into which the causation prototype is analyzed (e.g., control, motor program, volition, etc.) are probably also characterized by prototype and capable of further analysis. This permits us to have concepts pable of further basic, holistic, and indefinitely analyzable.

## Metaphorical Extensions of Prototypical Causation

Simple instances of making an object (e.g., a paper airplane, a snowball, a sand castle) are all special cases of direct causation. They all involve prototypical direct manipulation, with all of the properties listed above. But they have one additional characteristic that sets them apart as instances of *making*: As a result of the manipulation, we

view the object as a different kind of thing. What was a sheet of paper is now a paper airplane. We categorize it differently—it has a different form and function. It is essentially this that sets instances of making apart from other kinds of direct manipulation. Even a simple change of state, like the change from water to ice, can be viewed as an instance of making, since ice has a different form and function than water. Thus we get examples like:

You can make ice out of water by freezing it

This parallels examples like:

I made a paper airplane out of a sheet of newspaper I made a statue out of clay.

We conceptualize changes of this kind—from one state into another, having a new form and function—in terms of the metaphor THE OBJECT COMES OUT OF THE SUBSTANCE. This is why the expression out of is used in the above examples: the ice is viewed as emerging out of the water; the airplane is viewed as emerging out of the paper; the statue is viewed as emerging out of the clay. In a sentence like "I made a statue out of clay," the substance clay is viewed as the CONTAINER (via the SUBSTANCE IS A CONTAINER metaphor) from which the object—namely, the statue—emerges. Thus the concept MAKING is partly, but not totally, metaphorical. That is, MAKING is an instance of a directly emergent concept, namely, DIRECT MANIPULATION, which is further elaborated by the metaphor THE OBJECT COMES OUT OF THE SUBSTANCE.

Another way we can conceptualize making is by elaborating on direct manipulation, using another metaphor: THE SUBSTANCE GOES INTO THE OBJECT. Thus:

I made a sheet of newspaper *into* an airplane. I made the clay you gave me *into* a statue.

The SUBSTANCE GOES INTO THE OBJECT metaphor occurs

far more widely than in the concept of MAKING. We conceptualize a wide range of changes, natural as well as man-made, in terms of this metaphor. For example:

The water turned *into* ice.

The caterpillar turned *into* a butterfly.

She is slowly changing *into* a beautiful woman.

The OBJECT COMES OUT OF THE SUBSTANCE metaphor is also used outside the concept of MAKING but in a much more limited range of circumstances, mostly those having to do with evolution:

Mammals developed out of reptiles.

Our present legal system evolved out of English common law.

Thus the two metaphors we use to elaborate direct manipulation into the concept of MAKING are both used independently to conceptualize various concepts of CHANGE.

These two metaphors for CHANGE, which are used as part of the concept of MAKING, emerge naturally from as fundamental a human experience as there is, namely, birth. In birth, an object (the baby) comes out of a container (the mother). At the same time, the mother's substance (her flesh and blood) are in the baby (the container object). The experience of birth (and also agricultural growth) provides a grounding for the general concept of CREATION, which has as its core the concept of MAKING a physical object but which extends to abstract entities as well. We can see this grounding in birth metaphors for creation in general:

Our nation was born out of a desire for freedom. His writings are products of his fertile imagination. His experiment spawned a host of new theories. Your actions will only breed violence. He hatched a clever scheme. He conceived a brilliant theory of molecular motion. Universities are incubators for new ideas.

The theory of relativity first saw the light of day in 1905.

The University of Chicago was the birthplace of the nuclear age.

Edward Teller is the father of the hydrogen bomb.

These are all instances of the general metaphor CREATION IS BIRTH. This gives us another instance where a special case of causation is conceptualized metaphorically.

Finally, there is another special case of CAUSATION which we conceptualize in terms of the EMERGENCE metaphor. This is the case where a mental or emotional state is viewed as causing an act or event:

He shot the mayor out of desperation. He gave up his career out of love for his family. His mother nearly went crazy from loneliness. He dropped from exhaustion.

He became a mathematician out of a passion for order.

Here the STATE (desperation, loneliness, etc.) is viewed as a container, and the act or event is viewed as an object that emerges from the container. The CAUSATION is viewed as the EMERGENCE of the EVENT from the STATE.

### Summary

As we have just seen, the concept of CAUSATION is based on the prototype of DIRECT MANIPULATION, which emerges directly from our experience. The prototypical core is elaborated by metaphor to yield a broad concept of CAUSATION, which has many special cases. The metaphors used are THE OBJECT COMES OUT OF THE SUBSTANCE, THE SUBSTANCE GOES INTO THE OBJECT, CREATION IS BIRTH, and CAUSATION (of event by state) IS EMERGENCE (of the event/object from the state/container).

We also saw that the prototypical core of the concept CAUSATION, namely, DIRECT MANIPULATION, is not an unanalyzable semantic primitive but rather a gestalt consisting of properties that naturally occur together in our daily experience of performing direct manipulations. The pro-

our experience, so that there are not always ultimate buildcepts can often be analyzed further and further, relative to more than one way. Moreover, along each dimension, conthat concepts can be analyzed along these dimensions in stead, that there are natural dimensions of experience and theory we will propose in the next chapter suggests, ininto ultimate building blocks in one and only one way. The either is an ultimate building block or can be broken down a "building-block" theory. In such theories, each concept primitive in our experience, but not in the sense required by totypical concept DIRECT MANIPULATION is basic and ing blocks.

unanalyzable primitive: Thus there are three ways in which CAUSATION is not an

-It is characterized in terms of family resemblances to the prototype of direct manipulation.

—The direct manipulation prototype itself is an indefinitely analyzable gestalt of naturally cooccurring properties. prototypical core of CAUSATION is elaborated

metaphorically in various ways.

Interessante essa visão de metáfora, gente, pra desenvolver na tese! Se para os conhecimento narrativo... da metáfora viva no tempo, dá pra fundamentar bem mais aquela teoria minha do autores um dos elementos fundantes do conhecimento é o pensamento netafórico tal como definem, e Ricoeur diz que a narrativa é o desenvolvimento

É uma ampla "poética do conhecimento"...

### The Coherent Structuring of Experience

## Experiential Gestalts and the Dimensions of Experience

first have to see what it means to be engaged in a conversathe difference between a conversation and an argument, we argument, and what does that have to do with war? To see a conversation and you suddenly realize that it has turned into an argument. What is it that makes a conversation an is partially structured by the concept war (thus giving us we have suggested that an argument is a conversation that the ARGUMENT IS WAR metaphor). Suppose you are having of what it means for an experience or set of experiences to be coherent by virtue of having a structure. For example, metaphorical structuring, we must first have a clearer idea another. In order to see in detail what is involved in ways of partially structuring one experience in terms of We have talked throughout of metaphorical concepts as

polite social interaction. whatever other purposes a conversation may have for the ble fashion) takes a certain amount of cooperation. And participants, conversations generally serve the purpose of keeping to the topic at hand (or shifting topics in a permissitopic or set of topics. Maintaining the turn-taking and who are talking to each other. Typically, one of them initiates it and they take turns talking about some common The most basic kind of conversation involves two people

tion, several dimensions of structure can be seen: Even in as simple a case as a polite two-party conversa-

Participants: The participants are of a certain natural kind, namely, people. Here they take the role of speakers. The conversation is defined by what the participants do, and the same participants play a role throughout the conversation.

Parts: The parts consist of a certain natural kind of activity, namely, talking. Each turn at talking is a part of the conversation as a whole, and these parts must be put together in a certain fashion for there to be a coherent conversation.

Stages: Conversations typically have a set of initial conditions and then pass through various stages, including at least a bearing a central part, and an end. Thus there are certain e said in order to initiate a conversation ("'Hello!", "How are you?", etc.), others that move it along to

Linear sequence: The participants' turns at speaking are ordered in a linear sequence, with the general constraint that the speakers alternate. Certain overlappings are permitted, and there are lapses where one speaker doesn't take his turn and the other speaker continues. Without such constraints on linear sequencing of parts, you get a monologue or a jumble of words but no conversation.

Causation: The finish of one turn at talking is expected to result in the beginning of the next turn.

Purpose: Conversations may serve any number of purposes, but all typical conversations share the purpose of maintaining polite social interaction in a reasonably cooperative manner.

There are many details that could be added that characterize conversation more precisely, but these six dimensions of structure give the main outlines of what is common to typical conversations.

If you are engaged in a conversation (which has at least these six dimensions of structure) and you perceive it turning into an argument, what is it that you perceive over and above being in a conversation? The basic difference is a sense of being embattled. You realize that you have an opinion that matters to you and that the other person doesn't accept it. At least one participant wants the other to

give up his opinion, and this creates a situation where there is something to be won or lost. You sense that you are in an argument when you find your own position under attack or when you feel a need to attack the other person's position. It becomes a full-fledged argument when both of you devote most of your conversational energy to trying to discredit the other person's position while maintaining your own. The argument remains a conversation, although the element of polite cooperation in maintaining the conversational structure may be strained if the argument becomes heated.

The sense of being embattled comes from experiencing yourself as being in a warlike situation even though it is not actual combat—since you are maintaining the amenities of conversation. You experience the other participant as an adversary, you attack his position, you try to defend your own, and you do what you can to make him give in. The structure of the conversation takes on aspects of the structure of a war, and you act accordingly. Your perceptions and actions correspond in part to the perceptions and actions of a party engaged in war. We can see this in more detail in the following list of characteristics of argument:

You have an opinion that matters to you. (having a position)

The other participant does not agree with your opinion. (has a different position)

It matters to one or both of you that the other give up his opinion (surrender) and accept yours (victory). (he is your adversary)

The difference of opinion becomes a conflict of opinions (conflict)

You think of how you can best convince him of your view (plan strategy) and consider what evidence you can bring to bear on the issue (marshal forces).

Considering what you perceive as the weaknesses of his position, you ask questions and raise objections designed to force him ultimately to give up his position and adopt yours. (attack)

You try to change the premises of the conversation so that you will be in a stronger position. (maneuvering)

In response to his questions and objections, you try to main-

In response to his questions and objections, you try to maintain your own position. (defense)

As the argument progresses, maintaining your general view may require some revision. (retreat)

You may raise new questions and objections. (counterattack) Either you get tired and decide to quit arguing (truce), or neither of you can convince the other (stalemate), or one of you gives in. (surrender)

What gives coherence to this list of things that make a conversation into an argument is that they correspond to elements of the concept war. What is added from the concept war to the concept conversation can be viewed in terms of the same six dimensions of structure that we gave in our description of conversational structure.

Participants: The kind of participants are people or groups of people. They play the role of adversaries.

Parts: The two positions
Planning strategy

Attack
Defense
Retreat
Maneuvering
Counterattack

Stalemate Truce

Surrender/victory

Stages: Initial conditions: Participants have different positions. One or both wants the other to surrender. Each participant assumes he can defend his

position.

Beginning: One adversary attacks.

Middle: Combinations of defense maneuvering

retreat counterattack

End: Either truce or stalemate or surrender/ victory

Final state: Peace, victor has dominance over loser

Linear sequence: Retreat after attack

Defense after attack

Counterattack after attack

Causation: Attack results in defense or counterattack or retreat or end.

urpose: Victory

Understanding a conversation as being an argument involves being able to superimpose the multidimensional structure of part of the concept war upon the corresponding structure conversation. Such multidimensional structures characterize experiential gestalts, which are ways of organizing experiences into structured wholes. In the Argument is war metaphor, the gestalt for conversation is structured further by means of correspondences with selected elements of the gestalt for war. Thus one activity, talking, is understood in terms of another, physical fighting. Structuring our experience in terms of such multidimensional gestalts is what makes our experience coherent. We experience a conversation as an argument when the war gestalt fits our perceptions and actions in the conversation.

Understanding such multidimensional gestalts and the correlations between them is the key to understanding coherence in our experience. As we saw above, experiential gestalts are multidimensional structured wholes. Their dimensions, in turn, are defined in terms of directly emergent concepts. That is, the various dimensions (participants, parts, stages, etc.) are categories that emerge naturally from our experience. We have already seen that CAUSATION is a directly emergent concept, and the other dimensions in

terms of which we categorize our experience have a fairly obvious experiential basis:

Participants: This dimension arises out of the concept of the SELF as an actor distinguishable from the actions he performs. We also distinguish kinds of participants (e.g., people, animals, chiects)

etc.) that we can control independently. Likewise, we experience physical objects either in terms of parts that they naturally have or parts that we impose upon them, either by virtue of our perceptions, our interactions with them, or our uses for them. Similarly, we impose a part-whole structure on events and activities. And, as in the case of participants, we distinguish kinds of parts (e.g., kinds of objects, kinds of activities, etc.).

Stages: Our simplest motor functions involve knowing where we are and what position we are in (initial conditions), starting to move (beginning), carrying out the motor function (middle), and stopping (end), which leaves us in a final state.

Linear sequence: Again, the control of our simplest motor functions requires us to put them in the right linear sequence. Purpose: From birth (and even before), we have needs and desires, and we realize very early that we can perform certain actions (crying, moving, manipulating objects) to satisfy them.

These are some of the basic dimensions of our experience. We classify our experiences in such terms. And we see *coherence* in diverse experiences when we can categorize them in terms of gestalts with at least these dimensions.

# What Does It Mean for a Concept to Fit an Experience?

Let us return to the experience of being in a conversation that turns into an argument. As we saw, being in a conversation is a structured experience. As we experience a conversation, we are automatically and unconsciously classifying our experience in terms of the natural dimensions of

the CONVERSATION gestalt: Who's participating? Whose turn is it? (= which part?) What stage are we at? And so on. It is in terms of imposing the CONVERSATION gestalt on what is happening that we experience the talking and listening that we engage in as a particular kind of experience, namely, a conversation. When we perceive dimensions of our experience as fitting the war gestalt in addition, we become aware that we are participating in another kind of experience, namely, an argument. It is by this means that we classify particular experiences, and we need to classify our experiences in order to comprehend, so that we will know what to do.

Thus we classify particular experiences in terms of experiential gestalts in our conceptual system. Here we must distinguish between: (1) the experience itself, as we structure it, and (2) the concepts that we employ in structuring it, that is, the multidimensional gestalts like conversation and argument. The concept (say, conversation) specifies certain natural dimensions (e.g., participants, parts, stages, etc.) and how these dimensions are related. There is a correlation, dimension by dimension, between the concept conversation and the aspects of the actual activity of conversing. This is what we mean when we say that a concept fits an experience.

It is by means of conceptualizing our experiences in this manner that we pick out the "important" aspects of an experience. And by picking out what is "important" in the experience, we can categorize the experience, understand it, and remember it. If we were to tell you that we had an argument yesterday, we would be telling you the truth if our concept of an ARGUMENT, with us as participants, fits an experience that we had yesterday, dimension by dimension.

### Metaphorical Structuring versus Subcategorization

In our discussion of the concept ARGUMENT, we have been assuming a clear-cut distinction between subcategorization

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of the same structural features. On the other hand, we took categorization were (a) same kind of activity and (b) enough conversation. The same kind of activity occurs in both, categorization, because an argument is basically a kind of "An argument is a conversation" to be an instance of suband metaphorical structuring. On the one hand, we took GUMENT is partially structured in terms of WAR. Argument and a war are basically different kinds of activity, and ARfeatures of a conversation. Thus our criteria for subnamely, talking, and an argument has all the basic structural selected elements of the concept war are used. Thus our ARGUMENT IS WAR to be a metaphor because an argument and (b) partial structuring (use of certain selected parts). criteria for metaphor were (a) a difference in kind of activity instead of combat. The structure is partial, because only is a different kind of activity because it involves talking

volves hurting, inflicting pain, injuring, etc. But there is are the same kind of activity. This is not a simple issue. metaphor? The issue here is whether fighting and arguing ARGUMENT IS A FIGHT. Is this a subcategorization or a the same kind or of different kinds. Take, for example, AN is not always clear when two activities (or two things) are of metaphor on the basis of these criteria. The reason is that it dominance. If your concept FIGHT includes psychological both physical pain and what is called psychological pain; Fighting is an attempt to gain dominance that typically inceive of FIGHT as purely physical, and if you view psycho-FIGHT as a subcategorization rather than a metaphor, since dominance and pain, then you may see AN ARGUMENT IS A dominance and psychological pain on a par with physical this view an argument would be a kind of fight, structured in both would involve gaining psychological dominance. On there is physical dominance and there is psychological might view an argument is a fight as metaphorical logical pain only as pain taken metaphorically, then you the form of a conversation. If, on the other hand, you con-But we cannot always distinguish subcategorization from

The point here is that subcategorization and metaphor are endpoints on a continuum. A relationship of the form A is B (for example, AN ARGUMENT IS A FIGHT) will be a clear subcategorization if A and B are the same kind of thing or activity and will be a clear metaphor if they are clearly different kinds of things or activities. But when it is not clear whether A and B are the same kind of thing or activity, then the relationship A is B falls somewhere in the middle of the continuum.

The important thing to note is that the theory outlined in chapter 14 allows for such unclear cases as well as for the clear ones. The unclear cases will involve the same kinds of structures (with the same dimensions and the same possible complexities) as the clear cases. In an unclear case of the form A is B, A and B will both be gestalts that structure certain kinds of activities (or things), and the only question will be whether the activities or things structured by those gestalts are of the same kind.

e.g., liking. This is typical of emotional concepts, which are directly, via metaphor. ion and therefore must be comprehended primarily in not clearly delineated in our experience in any direct tash-LOVE IS AN EMOTION and by links to other emotions, core that is minimally structured by the subcategorization MADNESS, LOVE IS WAR, etc. The concept of LOVE has a cepts. Certain concepts are structured almost entirely LOVE IS A PATIENT, LOVE IS A PHYSICAL FORCE, LOVE IS tured mostly in metaphorical terms: LOVE IS A JOURNEY, metaphorically. The concept LOVE, for example, is strucwhat we have been calling metaphorically structured constructured partially in terms of other gestalts. These are elaborate (WAR). There are also complex gestalts, which are emerge naturally from experience. Some gestalts are relatively simple (CONVERSATION) and some are extremely riential gestalts, which have various dimensions that We have so far characterized coherence in terms of expe-

But there is more to coherence than structuring in terms

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of multidimensional gestalts. When a concept is structured by more than one metaphor, the different metaphorical structurings usually fit together in a coherent fashion. We will now turn to other aspects of coherence, both within a single metaphorical structuring and across two or more metaphors.

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## Metaphorical Coherence

# Specialized Aspects of a Concept

appear in actual "rational" argument in a disguised or GUMENT has specialized aspects that are used in certain detail to get a sense of its general overall structure. As is the restricted in the case of RATIONAL ARGUMENT. In the ideal ARGUMENT. Moreover, the purpose of argument is further ARGUMENT as a specialized branch of the general concept refined form. These additional restrictions define RATIONAL everyday argument (intimidation, appeal to authority, etc.) stating premises, citing supporting evidence, and drawing RATIONAL ARGUMENT the tactics are ideally restricted to is distinguished from everyday, "irrational" argument. In ARGUMENT is specialized to RATIONAL ARGUMENT, which subcultures or in certain situations. We saw, for example, case with many of our general concepts, the concept ARcase, the purpose of winning the argument is seen as servlogical conclusions. In practice, as we saw, the tactics of that in the academic world, legal world, etc., the concept So far we have looked at the concept ARGUMENT in enough ing the higher purpose of understanding.

Within RATIONAL ARGUMENT itself there is a further specialization. Since written discourse rules out the dialogue inherent in two-party arguments, a special form of one-party argument has developed. Here speaking typically becomes writing, and the author addresses himself, not to an actual adversary, but to a set of hypothetical adversaries or to actual adversaries who are not present to defend themselves, counterattack, etc. What we have here is the specialized concept one-party rational argument.

Finally, there is a distinction between an argument as a process (arguing) and an argument as a product (what has been written or said in the course of arguing). In this case, the process and the product are intimately related aspects of the same general concept, neither of which can exist without the other, and either of which can be focused on. Thus we speak of the stage of an argument as applying indifferently to the process or the product.

A ONE-PARTY RATIONAL ARGUMENT is a specialized branch of the general concept ARGUMENT and, as such, has many special constraints on it. Since there is no particular adversary present, an idealized adversary must be assumed. If the purpose of victory is to be maintained, it must be victory over an idealized adversary who is not present. The only way to guarantee victory is to be able to overcome all possible adversaries and to win neutral parties over to your side. To do this, you have to anticipate possible objections, defenses, attacks, etc., and deal with them as you construct your argument. Since this is a RATIONAL ARGUMENT, all of these steps must be taken, not just to win, but in the service of the higher purpose of understanding.

The further restrictions placed on one-party rational arguments require us to pay special attention to certain aspects of argument which are not so important (or perhaps not even present) in everyday argument. Among them

Content: You have to have enough supporting evidence and say enough of the right things in order to make your point and to overcome any possible objections.

Progress: You have to start with generally agreed upon premises and move in linear fashion toward some conclusion.

Structure: RATIONAL ARGUMENT requires appropriate logical connections among the various parts.

Strength: The ability of the argument to withstand assault depends on the weight of the evidence and the tightness of the logical connections.

Basicness: Some claims are more important to maintain and defend than others, since subsequent claims will be based upon them.

Obviousness: In any argument there will be things which are not obvious. These need to be identified and explored in sufficient detail.

Directness: The force of an argument can depend on how straightforwardly you move from premises to conclusions.

Clarity: What you are claiming and the connections between your claims must be sufficiently clear for the reader to understand them.

concept as a whole. concept, to jointly provide a coherent understanding of the coherent understanding of what a rational argument is. We different metaphors, each of which partially structures a will now take up the question of what it means for various these aspects, but together they do the job of giving us a plete, consistent, and comprehensive understanding of all ARGUMENT. No one of them is sufficient to give us a comon some of the above aspects of the concept RATIONAL BUILDING. As we will see, each of these gives us a handle AN ARGUMENT IS A CONTAINER, and AN ARGUMENT IS A on these important aspects: AN ARGUMENT IS A JOURNEY, by means of other metaphors which do enable us to focus which are crucial to idealized RATIONAL ARGUMENT. As a argument. The concept conversation and the arguresult, the concept rational argument is further defined MENT IS WAR metaphor do not focus on these aspects. that are not necessarily present in an ordinary everyday These are aspects of a one-party rational argument

# Coherence within a Single Metaphor

We can get some idea of the mechanism of coherence within a single metaphorical structuring by starting with the metaphor an argument is a journey. This metaphor has

to do with the goal of the argument, the fact that it must have a beginning, proceed in a linear fashion, and make progress in stages toward that goal. Here are some obvious instances of the metaphor:

## AN ARGUMENT IS A JOURNEY

We have set out to prove that bats are birds.

When we get to the next point, we shall see that philosophy is

So far, we've seen that no current theories will work.

We will proceed in a step-by-step fashion.

Our goal is to show that hummingbirds are essential to military defense.

This observation *points the way to* an elegant solution. We have *arrived at* a disturbing conclusion.

One thing we know about journeys is that a JOURNEY DEFINES A PATH.

A JOURNEY DEFINES A PATH

He strayed from the path.

He's gone off in the wrong direction.

They're following us.

I'm lost.

Putting together AN ARGUMENT IS A JOURNEY and A JOURNEY DEFINES A PATH, we get:

AN ARGUMENT DEFINES A PATH

He strayed from the line of argument

Do you follow my argument?

Now we've gone off in the wrong direction again.

I'm lost.

You're going around in circles.

Moreover, paths are conceived of as surfaces (think of a carpet unrolling as you go along, thus creating a path behind you):

THE PATH OF A JOURNEY IS A SURFACE

We covered a lot of ground.

He's on our trail.

He strayed off the trail.

We went back over the same trail.

Given that AN ARGUMENT DEFINES A PATH and THE PATH OF A JOURNEY IS A SURFACE, we get:

THE PATH OF AN ARGUMENT IS A SURFACE

We have already covered those points.

We have covered a lot of ground in our argument.

Let's go back over the argument again.

You're getting off the subject.

You're really onto something there.

We're well on our way to solving this problem

Here we have a set of cases that fall under the metaphor AN ARGUMENT IS A JOURNEY. What makes them systematic is a pair of metaphorical entailments that are based on two facts about journeys.

The facts about journeys:

A JOURNEY DEFINES A PATH
THE PATH OF A JOURNEY IS A SURFACE

The metaphorical entailments:

AN ARGUMENT IS A JOURNEY

A JOURNEY DEFINES A PATH

Therefore, AN ARGUMENT DEFINES A PATH

AN ARGUMENT IS A JOURNEY

THE PATH OF A JOURNEY IS A SURFACE

Therefore, THE PATH OF AN ARGUMENT IS A SURFACE

Here metaphorical entailments characterize the *internal* systematicity of the metaphor AN ARGUMENT IS A JOURNEY, that is, they make coherent all the examples that fall under that metaphor.

Coherence between Two Aspects of a Single Concept

AN ARGUMENT IS A JOURNEY IS only one of the metaphors for arguments, the one we use to highlight or talk about the

goal, direction, or progress of an argument. When we want to talk about the content of an argument, we use the structurally complex metaphor AN ARGUMENT IS A CONTAINER. Containers can be viewed as defining a limited space (with a bounding surface, a center, and a periphery) and as holding a substance (which may vary in amount, and which may have a core located in the center). We use the ARGUMENT IS A CONTAINER metaphor when we want to highlight any of these aspects of an argument.

## AN ARGUMENT IS A CONTAINER

Your argument doesn't have much content

That argument has holes in it.

You don't have much of an argument, but his objections have even less substance.

Your argument is vacuous.

I'm tired of your empty arguments.

You won't find that idea in his argument.

That conclusion falls out of my argument

Your argument won't hold water.

Those points are *central* to the argument—the rest is *periph-*

I still haven't gotten to the core of his argument.

Since the purposes of the JOURNEY and CONTAINER metaphors are different, that is, since they are used to focus in detail on different aspects of an argument (goal and progress versus content), we would not expect these metaphors to overlap completely. It is possible in some cases to focus jointly on both the JOURNEY (progress) and CONTAINER (content) aspects of an argument. Thus we get certain mixed metaphors that display both of these aspects at once-

Overlap between JOURNEY and CONTAINER metaphors:

At this point our argument doesn't have much content. In what we've done so fur, we have provided the core of our

argument.

If we keep going the way we're going, we'll fit all the facts in.

What makes this overlap possible is that the JOURNEY and CONTAINER metaphors have shared entailments. Both

CONTAINER surface). creation of a surface. As the argument covers more ground as more and more of the surface of the container is created and more of the surface defined by that path is created, just (via the JOURNEY surface), it gets more content (via the argument has). As the path of the journey unfolds, more The overlap between the two metaphors is the progressive substance there is in the container (the more content the more surface there is (the longer the argument), the more a container that is designed and used most efficiently, all of container corresponds to the "content" of the argument. In corresponds to the form of the argument, and what is in the the bounding surface is used to hold content. Ideally, the TAINER metaphor, the bounding surface of the container ered (the more content the argument has). In the conthe path (the longer the argument), the more ground is covexpress some content. In the JOURNEY metaphor, the longer a good argument, however, each element of form is used to ground; that is, the argument doesn't have much content. In circles, we may have a long path, but we don't cover much corresponds to the content. When we are going around in sponds to the form of the argument and the ground covered from the content. In the JOURNEY metaphor, the path corremetaphors allow us to distinguish the form of the argument

What characterizes this overlap is a shared entailment that arises in the following way.

A nonmetaphorical entailment about journeys:

As we make a journey, more of a path is created.

A PATH IS A SURFACE.

Therefore, As we make a journey, more of a surface is created.

A metaphorical entailment about arguments (based on journeys):

AN ARGUMENT IS A JOURNEY.

As we make a journey, more of a surface is created.

Therefore, As we make an argument, more of a surface is created.

METAPHORICAL COHERENCE

A metaphorical entailment about arguments (based on containers):

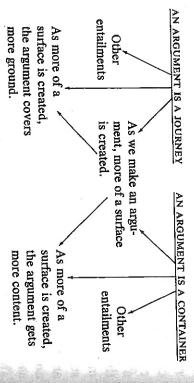
AN ARGUMENT IS A CONTAINER.

As we make a container, more of a surface is created.

Therefore, As we make an argument, more of a surface is

created.

Here the two metaphorical entailments have the same conclusion. This can be represented by the accompanying diagram.



It is this overlap of entailments between the two metaphors that defines the coherence between them and provides the link between the amount of ground the argument covers and the amount of content it has. This is what allows them to "fit together," even though they are not completely consistent, that is, there is no "single image" that completely fits both metaphors. The surface of a container and the surface of the ground are both surfaces by virtue of common topological properties. But our image of ground surface is very different than our images of various kinds of container surfaces. The abstract topological concept of a surface which forms the overlap between these two metaphors is not concrete enough to form an image. In general when metaphors are coherent but not consistent, we should not expect them to form consistent images.

The difference between coherence and consistency is

of the direction of the argument. Thus we do not get sendirection of the content of the argument nor of the content argument and of the content of the argument but not of the once. For example, we can speak of the direction of the clearly delineated metaphor that satisfies both purposes at tences like: metaphors resulting from the impossibility of a single mix. Thus we get instances of impermissible mixed argument and the content of the argument. These two purget a handle simultaneously on both the direction of the And where the purposes won't mix, the metaphors won't poses cannot both be served at once by a single metaphor. do the job-there is no one metaphor that will allow us to two metaphors is because there is no one metaphor that will concept, e.g., JOURNEY OF CONTAINER. The reason we need cept argument: in this, each serves a single purpose. pect of the concept in terms of a more clearly delineated Moreover, each metaphor allows us to understand one ascrucial. Each metaphor focuses on one aspect of the con-

We can now follow the path of the core of the argument. The content of the argument proceeds as follows. The direction of his argument has no substance. I am disturbed by the vacuous path of your argument.

The two metaphors would be consistent if there were a way to *completely* satisfy both purposes with one clearly delineated concept. Instead, what we get is coherence, where there is a partial satisfaction of both purposes. For instance, the *Journey* metaphor highlights both direction and progress toward a goal. The container metaphor highlights the content with respect to its amount, density, centrality, and boundaries. The *progress* aspect of the *Journey* metaphor and the *amount* aspect of the *Journey* metaphor can be highlighted simultaneously because the amount increases as the argument progresses. And, as we saw, this results in permissible mixed metaphors.

we have found the following: metaphorical structurings of the concept ARGUMENT, and So far we have looked at the coherences between two

- -Metaphorical entailments play an essential role in linking all of (as in the various instances of the AN ARGUMENT IS A JOURNEY the instances of a single metaphorical structuring of a concept metaphor).
- -Metaphorical entailments also play an essential role in linking two different metaphorical structurings of a single concept (as in the journey and container metaphors for argument).
- -A shared metaphorical entailment can establish a crossmetaphorical correspondence. For example, the shared entailground covered in the argument (which is in the JOURNEY CREATED establishes a correspondence between the amount of ment as we make an argument, more of a surface, is metaphor) and the amount of content in the argument (which is in the CONTAINER metaphor).
- -The various metaphorical structurings of a concept serve different purposes by highlighting different aspects of the concept.
- -Where there is an overlapping of purposes, there is an overlapping of metaphors and hence a coherence between them. Permissible mixed metaphors fall into this overlap.
- -In general, complete consistency across metaphors is rare; coherence, on the other hand, is typical.

### Complex Coherences across Metaphors

and the cross-metaphorical correspondences established by characterized in terms of shared metaphorical entailments overlaps in the metaphors. Such overlaps, we claim, can be purposes, then overlaps in the purposes will correspond to concept. When two metaphors successfully satisfy two satisfies a purpose, namely, understanding an aspect of the aspect of the concept. Thus a metaphor works when it them. metaphor for arguments, allows us to get a handle on one metaphorical structuring of a concept, say the JOURNEY discussion of coherence is the role of The most important thing to bear in mind throughout our purpose. A

ARGUMENT. lead to such complexities by examining further the concept overlapping of metaphors. We can isolate the factors that understood in metaphorical terms, which leads to further one concept, we use other concepts that are themselves tially structure a single concept and (2) when we discuss complexity: (1) there are often many metaphors that parvolved in complex examples. There are two sources of such would now like to show that the same mechanisms are in-We saw this in a simple example in the last chapter. We

content of the argument. The things we take for granted are connections between things that are obvious—that we take the starting point of the argument. The things we wish to this by putting ideas together. These ideas constitute the for granted—and other things that are not obvious. We do ing. We construct arguments when we need to show the In general, arguments serve the purpose of understand-

CONTAINER

BUILDING

show are the goals that we must reach. As we proceed argument certain ideas and connections may be more basic network of connections has an overall structure. In any toward these goals, we make progress by establishing conconnections, and how easy it is to understand the constrength of the connections, how directly it establishes the nections. The connections may be strong or weak, and the aspects of the concept: nections. Briefly, the various ARGUMENT metaphors serve How good an argument is will depend on its content, the than others, certain ideas will be more obvious than others. the purpose of providing an understanding of the following

progress content structure strength obviousness basicness clarity directness

of content. But these two metaphors serve even more pur-CONTAINER metaphor focuses at least on content, and that there is an overlap based on the progressive accumulation metaphor focuses at least on content and progress, that the poses and are involved in even more complex coherences. We can see this by considering a third metaphor for arguthe preceding chapter we saw that the JOURNEY

## AN ARGUMENT IS A BUILDING

If you don't support your argument with solid facts, the We've got the framework for a solid argument.

He is trying to butiress his argument with a lot of irrelevant whole thing will collapse.

under criticism. facts, but it is still so shaky that it will easily fall apart

With the groundwork you've got, you can construct a pretty strong argument.

phors focus on all of the above aspects of the concept ARGU-Together, the JOURNEY, CONTAINER, and BUILDING meta-

MENT, as the following lists show:

JOURNEY

Here are some examples of how we understand each of obviousness content directness progress clarity strength content basicness progress structure strength progress content basicness

these aspects in terms of the metaphors:

#### JOURNEY

So far, we haven't covered much ground. (progress, content) We need to go into this further in order to see clearly what's This is a roundabout argument. (directness) involved. (progress, obviousness)

### CONTAINER

These ideas form the solid core of the argument. (strength You have all the right ideas in your argument, but the argument is still not transparent. (content, progress, clarity) basicness)

#### BUILDING

We have now constructed most of the argument. (progress We've got a foundation for the argument, now we need a solid framework. (basicness, strength, structure)

journeys and containers define surfaces was the basis for further overlaps with the BUILDING metaphor. In each case namely, the foundation and the outer shell, makes possible metaphors. The fact that a building also has a surface, the surface defines the content, but in different ways: the overlap between the JOURNEY and CONTAINER We saw in the preceding chapter that the fact that both

JOURNEY: The surface defined by the path of the argument covered by the argument. "covers ground," and the content is the ground

CONTAINER: The content is inside the container, whose boundaries are defined by its surface.

COMPLEX COHERENCES ACROSS METAPHORS

BUILDING: The surface is the outer shell and foundation, which metaphor, the content is not in the interior; instead BUILDING metaphor, unlike the CONTAINER define an interior for the building. But in the content to support your claims" and "The dation of your argument does not have enough tent. We can see this in examples like: "The founthe foundation and outer shell constitute the consubstance to withstand criticism." framework of your argument does not have enough

Let us call these surfaces "content-defining surfaces."

not always the case, as the following examples show: the same as the content-defining surface. However, this is depth is also defined relative to a surface, we might think metaphorical overlap based on the notion of depth. Since to account for many of the coherences that we find among that the depth-defining surface for each metaphor would be the metaphors. For example, there are instances of The notion of a content-defining surface is not sufficient

This is a shallow argument; it needs more foundation. (BUILDING)

We have gone over these ideas in great depth. (JOURNEY) You haven't gotten to the deepest points yet-those at the core of the argument. (CONTAINER)

denning surface is the ground level. In the CONTAINER In both the BUILDING and JOURNEY metaphors, the depthmetaphor, it is again the container surface.

Content-defining surface Surface created Surface of Depth-defining surface Ground level by path (the JOURNEY Surface of the container CONTAINER the container and shell Ground level BUILDING Foundation

operating here. recognize that there are two different notions of depth metaphors, what is deeper is more basic. The most basic Before proceeding to the coherences, it is important to BUILDING and CONTAINER

> the journey: topics; it also requires us to go sufficiently deeply into them. Going into the topic to the required depth is part of on") and, in addition, covering them at appropriate depths. ering certain topics (finishing with them-", putting the lid surface are hidden from immediate view; we need to go into are those that are not obvious. Facts that are not on the Progress in an argument is not merely a matter of covering them in depth. The purposes of an argument include covparts of the argument are the deepest: the foundation and the core. However, in the JOURNEY metaphor, deep facts

We have come to a point where we must explore the issues at As we go into the topic more deeply, we find...

a deeper level.

expressions: topic at a certain depth. This accounts for the following journey. It is by leaving this surface behind that we cover a a trail (a surface) behind us, as we do on all parts of the covered. But as we go into any one topic in depth, we leave it is that surface that defines the depth of the topics to be Since most of the journey is over the surface of the earth,

As we go along, we will go through these issues in depth. We have now covered all the topics at the appropriate levels. We will be going deeply into a variety of topics.

sistency is not possible, there is metaphorical coherence. ment, there is no consistent image possible within any of depth and progress are very different aspects of an arguthe ARGUMENT metaphors. But here, as before, though conto lack of obviousness in the JOURNEY metaphor. Since basicness in the BUILDING and CONTAINER metaphors but Thus the metaphorical orientation of depth corresponds to

metaphors, there is coherence among all three metaphors of the coherence between the JOURNEY and CONTAINER see a number of other complex coherences. As in the case surfaces and depth-defining surfaces, we are in a position to Having clarified the distinction between content-defining

based on the fact that all three have content-defining surfaces. As the argument proceeds, more of a surface is created, and hence the argument gets more content. This overlap among the three metaphorical structurings of the concept allows mixed metaphors of the following sort:

So far we have constructed the core of our argument.

Here "so far" is from the JOURNEY metaphor, "construct" is from the BUILDING metaphor, and "core" is from the CONTAINER metaphor. Notice that we can say pretty much the same thing by using the building concept "foundation" or the neutral concept "most basic part" in place of "core".

So far we have constructed the foundation of the argument.
So far we have constructed the most basic part of the argu-

What makes this possible is that depth characterizes basicness in both the BUILDING and CONTAINER metaphors. Both of them have a deepest, that is, most basic part: In the CONTAINER metaphor it is the core, and in the BUILDING metaphor it is the foundation. Thus we have a correspondence between the two metaphors. This can be seen in the following examples, where the CONTAINER and BUILDING metaphors can be freely mixed by virtue of the correspondence.

These points are central to our argument and provide the

foundation for all that is to come. We can undermine the argument by showing that the central

points in it are weak.

The most important ideas, upon which everything else rests, are at the core of the argument.

The correspondence here is based on the shared entailment:

AN ARGUMENT IS A BUILDING.
A building has a deepest part.
Therefore, AN ARGUMENT HAS A DEEPEST PART.

AN ARGUMENT IS A CONTAINER.

A container has a deepest part.

Therefore, AN ARGUMENT HAS A DEEPEST PART.

Since depth characterizes basicness for both metaphors, the deepest part is the most basic part. The concept MOST BASIC PART therefore falls into the overlap of the two metaphors and is neutral between them.

Since the purpose of an argument is to provide understanding, it is not surprising that the metaphor UNDERSTANDING IS SEEING should overlap with the various ARGUMENT metaphors. When you travel, you see more as you go along. This carries over to the metaphor AN ARGUMENT IS A JOURNEY. As you go along through the argument, you see more—and, since UNDERSTANDING IS SEEING, you understand more. This accounts for expressions like:

We have just *observed* that Aquinas used certain Platonic notions.

Having come this far, we can now see how Hegel went wrong.

Because a journey may have a guide who points out things of interest along the way, we also get expressions like:

We will now show that Green misinterpreted Kant's account of will.

Notice that X does not follow from Y without added assumptions.

We ought to point out that no such proof has yet been found.

In these cases, the author is the guide who takes us through the argument.

Part of the JOURNEY metaphor involves going deeply into a subject. The UNDERSTANDING IS SEEING metaphor applies in this case too. In an argument the superficial points (those on the surface) are obvious; they are easy to see, easy to understand. But the deeper points are not obvious. It requires effort—digging—to reveal them so that we can see them. As we go more deeply into an issue, we reveal more,

which allows us to see more, that is, to understand more. This accounts for expressions like:

Dig further into his argument and you will discover a great deal.

We can see this only if we delve deeply into the issues. Shallow arguments are practically worthless, since they don't show us very much.

The UNDERSTANDING IS SEEING metaphor also overlaps with the BUILDING metaphor, where what is seen is the structure (shape, form, outline, etc.) of the argument:

We can now see the outline of the argument.

If we look carefully at the structure of the argument...

Finally, the UNDERSTANDING IS SEEING metaphor overlaps with the CONTAINER metaphor, where what we see is the content (through the surface of the container), as in:

That is a remarkably transparent argument. I didn't see that point in your argument.

Since your argument isn't very clear, I can't see what you're getting at.

Your argument has no content at all—I can see right through it.

Another cross-metaphorical coherence appears in discussing the quality of an argument. Many of the aspects of an argument that are focused on by the various ARGUMENT metaphors can be quantified—for example, content, clarity, strength, directness, and obviousness. The MORE IS BETTER metaphor overlaps with all of the ARGUMENT metaphors and allows us to view quality in terms of quantity. Thus we have examples like the following:

That's not much of an argument.

Your argument doesn't have any content.

It's not a very good argument, since it covers hardly any

ground at all.

This argument won't do—it's just not clear enough.

Your argument is too weak to support your claims.

The argument is too roundabout—no one will be able to follow it.

Your argument doesn't cover the subject matter in enough depth.

All of these assess quality in terms of quantity.

We have by no means exhausted all the cross-metaphorical coherences involving ARGUMENT metaphors. Consider, for example, the extensive network of coherences based on the ARGUMENT IS WAR metaphor. Here it is possible to win or lose, to attack and defend, to plan and pursue a strategy, etc. Here arguments may be fortresses via the BUILDING metaphor, so that we can launch an attack on an argument, knock holes in it, tear it down and destroy it. Arguments may also be missiles, via the CONTAINER metaphor. Thus we can offer the challenge "Shoot!" and the argument in reply may be right on target and hit the mark. In defense you can try to shoot down your opponent's argument.

lineated and concrete experiences and allow us to construct not otherwise. The metaphors come out of our clearly detogether when there are overlapping entailments, though concrete image, they are nonetheless coherent and do fit such metaphors do not provide us with a single consistent argument in all of its aspects, as we conceive them. Though are part of whole metaphorical systems that together serve shoot down—turn out to be not random at all. Rather, they nighly abstract and elaborate concepts, like that of an arguthe complex purpose of characterizing the concept of an ment, get to the core, dig deeper, attack a position, and sions--for example, cover those points, buttress your arguat first appear to be random, isolated metaphorical expresplex cases of the sort we have just examined. What may ence found in simple examples also occur in far more com-By now it should be clear that the same kinds of coher-