Diagramming Reasoning

The skill of diagramming reasoning is part of the interpretation of reasoning. The purpose of mapping or diagramming the general structure of reasoning is to see clearly how reasons and conclusions interconnect, how they relate to each other. Once we clearly know the structure of an argument or explanation, we can organize our evaluation more effectively and efficiently. Here are the four basic and simplest ways in which reasoning can be structured.

Reasons can be **DEPENDENT (or LINKED)** in supporting or explaining a conclusion: (A) (1)<If someone is a philosopher, then s/he is neurotic>, (2)<I’m a philosopher>, (so)(CI), (3)<I’m neurotic>. “CI” means “conclusion indicator”.

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1 & 2
\rightarrow a
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“a” means “argument”. We can also represent the same structure of reasoning horizontally: (1&2)→a1.

Reasons can be **INDEPENDENT**: (B) (1)<You should not drive over the speed limit> (because)(PI) (2)<it’s against the law>, and (3)<you should never break the law>. Moreover, (4)<you endanger human lives>, and (5)<you should never do that>. “PI” means “reason indicator”.

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2 + 3 \rightarrow a
4 + 5 \rightarrow a
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This reasoning can be represented by an equivalent diagram: 2 + 3 \rightarrow a, 4 + 5 \rightarrow a

A horizontal representation of the same reasoning: (2&3)→a1, (2&3)→a1.

The parentheses are very important because they indicate that reasons (2) and (3) are linked. Do not forget the comma between the arguments (or explanations).

In the next kind of argument structure, one or more reasons support different conclusions. (C) (1)<You could be a target for mail theft>. (So)(CI), (2)<always keep incoming mail in a locked mailbox>. (3)<Pick up incoming mail promptly after delivery>. (4)<Never leave mail in your mailbox overnight>.

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a \rightarrow 1
a \rightarrow 3
a \rightarrow 4
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This reasoning can be represented by an equivalent diagram: 1 \rightarrow a2, 1 \rightarrow a3, 1 \rightarrow a4.

A horizontal representation of the same reasoning: 1→a2, 1→a3, 1→a4.

Reasoning is sometimes intended to flow in a **SERIES**: (D) (1)<It’s has been raining very hard for a few hours>, (so)(CI) (2)<the soccer field will be too wet to play>, (consequently)(CI), (3)<the soccer game will be cancelled>.

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a \rightarrow 2
\downarrow
1
a \rightarrow 3
\downarrow
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In this example statement (2) plays two roles: it functions as a conclusion with respect to reason (1), and as a reason with respect to conclusion (3).

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1 \rightarrow a2 \rightarrow a3
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There are two arguments in (D).
GUIDELINES TO DETERMINE WHETHER REASONS ARE DEPENDENT (LINKED) OR INDEPENDENT

Consider the following argument adapted from Einstein: Knowledge is limited and imagination limitless. So, imagination is more important than knowledge. Which one of the following diagrams is the most charitable interpretation of the argument?

(E) DEPENDENT
Knowledge is limited. AND
Imagination is limitless

Imagination is more important than knowledge.

(F) INDEPENDENT
Knowledge is limited.
Imagination is limitless

Imagination is more important than knowledge.

The conclusion compares imagination and knowledge. So the conclusion needs support containing those ideas, but neither argument in (F) provides both ideas. But both ideas are in the reasons of (E). So (E) is the correct interpretation.

(a) Conceptual Dependence between reasons & their conclusion
1. Identify the conclusion.
2. Identify all the central ideas (concepts) in the conclusion.
3. Look for all these ideas in each reason.
4. If these central ideas are in different reasons, then these reasons are dependent (linked) because they need each other. In other words, if a reason has only one of those ideas, it must be linked to other (explicit/given or implicit/unstated) reason(s) that has (have) the other central ideas. We continue linking reasons until all they include all the central ideas of the conclusion.
5. If all the grouped explicit/given reasons still lack a central idea used in the conclusion, then there is an unstated (unexpressed, missing, implicit, hidden, tacit, suppressed) reason that contains that central idea. For example, the conclusion in argument (E) contains the idea of being more important, but this idea is not in any reason. Consequently, an unstated reason containing that idea must be conjoined to the two given reasons. Here’s one possibility: If something is limitless, then it’s more important than something that is limited. (We will examine this kind of implicit reason in a later section.) If this statement were linked to the two given statements in argument (E), then the conclusion would logically follow. At this point we would evaluate the truth of all three reasons.
6. If a statement does not contain any of the central ideas, it could be irrelevant. If it is irrelevant, and nothing suggests that the author intended it to be a reason, then it should not be part of the diagram.

(b) Conceptual dependence among reasons When a reason uses or refers to an idea in one or more other reasons, they are sometimes dependent (linked). For example, in (B) reasons (2) and (3) are both about laws, and they are linked, while (4) and (5) are both about endangering human lives (for “that” in (5) refers to “endangering human lives”), and so reasons (4) and (5) are linked.

Supportive Dependence
1. Identify the conclusion.
2. How strongly stated is the conclusion?
3. The more strongly stated the conclusion, the more support it requires.
4. Use counterexamples to test whether each reason or group of reasons is by itself sufficient for the intended degree of support for the conclusion.
5. If a reason or a group of reasons is *by itself* sufficient for the intended degree of support for the conclusion, then that reason or group of reasons is independent of all other reasons. For example, reasons (2) and (3) in argument (B) are together sufficient for the conclusion of (B), and so they are together independent of all the other reasons in (B).

6. If a reason or a group of reasons is NOT sufficient for the intended degree of support for the conclusion, and an additional given reason would *increase the support* for the same conclusion (and thus *increase the likelihood* of the conclusion), then those two reasons are dependent (linked). For instance, in argument (B) neither (4) nor (5) is *by itself* sufficient for conclusion (1), but together they increase the support for (1), and so they are dependent (linked).

Consider a further example: *There are many reasons why we should improve our critical thinking abilities.*

*We increase our chances of voting for the best candidate, making better investments, developing more appropriate friendships, pursuing more appropriate careers, and living emotionally healthier lives.*

The conclusion, “There are many reasons why we should improve our critical thinking abilities”, is strongly stated because it speaks of “many reasons”, and so no reason *by itself* would be *sufficient* to support the conclusion. In fact, because of the word “many” in the conclusion, many reasons must be linked. If we *mistakenly* interpreted this conclusion as being simply, “we should improve our critical thinking abilities”, then, according to guideline (6), the reasons should still be linked. For no reason by itself is sufficient for the conclusion (because counterexamples can be constructed against each single reason), but as we link more reasons, more counterexamples are blocked, and so the strength of the *support increases* (thereby increasing the likelihood of the conclusion). Therefore, the charitable interpretation is to link all the reasons.

7. If linking certain reasons blocks more counterexamples, their linking increases the support for the conclusion. In such cases they should be linked. Let’s consider again Einstein’s argument. If the reasons are interpreted as being independent of each other, as illustrated in the above diagram (F), then two counterexamples can be advanced against (F), but as we will see, the same counterexamples cannot be advanced against (E). Here is one counterexample against the left argument in (F).

*It is possible that:*
knowledge is limited [*all the reasons are granted*]; *and*
there is very little imagination, or imagination is even more limited than knowledge [*this proposition helps us to understand how the reason can be true and the conclusion false*]; *and*
it is not the case that imagination is more important than knowledge [*the conclusion is negated*].

Since this counterexample helps us to understand how it is possible for the reason of the left argument in diagram (F) to be true and its conclusion false, this reason is *not* sufficient for the truth of the conclusion: the argument is *not* valid. Here is a counterexample by possible conjunction against the right argument in (F).

*It is possible that:*

imagination is limitless [*all the reasons are granted*]; *and*
knowledge is also limitless [*this proposition helps us to understand how the reason can be true and the conclusion false*]; *and*
it is not the case that imagination is more important than knowledge [*the conclusion is negated*].

Just as with the preceding counterexample, this one also proves that the reason of the argument on the right in diagram (F) is *not* sufficient for the truth of the conclusion: the second argument is also invalid. What facilitates the construction of these counterexamples is that the conclusion is about *both* imagination and knowledge, but each reason is about either only imagination, or only knowledge.

But now look what happens when we link both reasons as illustrated in diagram (E). Since (E) includes the reason that imagination is limitless, and all reasons must be granted in a legitimate counterexample, then one cannot consistently imagine a case where there is very little imagination, or where imagination is more limited
than knowledge. So the first counterexample is blocked. Since (E) also includes the reason that knowledge is limited, and all reasons must be granted in a legitimate counterexample, then one cannot consistently imagine a situation where knowledge is limitless. Hence, the second counterexample is also blocked. Since linking the two reasons blocks two counterexamples that would legitimately apply if the reasons were independent of each other, then linking the reasons results in stronger support for the conclusion (though their combined support is still not sufficient for the conclusion). Whenever the linking of given reasons increases the support for their conclusion, the charitable interpretation is that the reasons are dependent. This is a further illustration of supportive dependence of reasons.

**Logical Dependence**

1. Identify the conclusion and reasons.

2. If two or more reasons and the conclusion correspond to a logical form of an argument, then those reasons are dependent (linked). Example (A) illustrates this kind of dependence because it has the form “If P, then Q. P. So, Q”. We will study logical forms later in the course.

**INSTRUCTIONS:** Select the diagram that represents the most reasonable interpretation of the structure of the reasoning in each passage. Imagine each vertical or inclined bar as an arrow pointing from reasons to a conclusion. Do this exercise only after having read the instructions for diagramming. In each case use the theory (and the interpretive principle of charity/generosity, and the interpretive principle of fidelity/loyalty) to select your answer. After completing each exercise, look at the answer and its justification, compare your reasoning to the given justification, and make any necessary corrections in your reasoning.

1. (1) {The world has never seen a watch like this one}. (2) {It automatically shows the local time and date as well as the time in every other zone around the world}. (3) {It even features a power reserve display}.

   A.  
   B.  
   C.  
   D.  
   E.  Not  
   1  
   \  
   / \  
   2 3  
   an argument

2. Because (1) {you are responsible for any injuries or damage caused by an improperly installed or operated electric generator}, (2) {your smart safety practices will protect you} and (3) {work crews employed by your local electric utility}.

   A.  
   B.  
   C.  
   D.  
   E.  Not  
   F.  
   1  
   \  
   / \  
   2 3  
   an argument

3. (1) But {I love the way you love me}. (2) {Strong and wild, slow and easy}. (3) {Heart and soul, so completely}. John Michael Montgomery

   A.  
   B.  
   C.  
   D.  
   E.  Neither an  
   1 2  
   \  
   / \  
   2 3  
   nor an explanation.
4. (1) The reasonable man adapts himself to the world. (2) The unreasonable man adapts the world to himself. Therefore, (3) all progress depends upon only the unreasonable man. G.B. Shaw

A.  B.  C.  D.  E.  Not
1  2 |  1 & 2 |  2  3 |   |  an
\ /  2 |         \ /                  argument
3  |  3  1  
3

5. (1) A significant source of information about the life of the ancient peoples of Mesopotamia is a code of laws issued about 1750 B.C. by the Babylonian king Hammurabi (1792-1750 B.C.). (2) Discovered by archaeologist in 1901, (3) the code was inscribed on a stone that shows the king accepting the laws from the sun god, Shamash, who was also the Babylonian god of justice.

A.  B.  C.  D.  E.  Not
1 |  2 & 3 |  2  3 |   |  an
\ /  2 |         \ /                  argument
2  3 |  1  1  
2

6. (1) Peace, born of conflict, is not like the ominous lull before the storm, but (2) it is like the serenity and quietness following the storm, with its fresh purified air. As a result, (3) there arises confidence.

A.  B.  C.  D.  E.
1  2 |  1 & 2 |  2  3 |   |  an
\ /  2 |         \ /                  argument
3  |  3  1  3
3

7. (1) If all species were created at the same time, then all vertebrates would make their first appearance in the fossil rocks of the same age. But (2) it is not true that all vertebrates have made their first appearance in the fossil rocks of the same age. Consequently, (3) not all species were created at the same time.

A.  B.  C.  D.  E.  Not
1  2 |  1 & 2 |  2  3 |   |  an
\ /  2 |         \ /                  argument
3  |  3  1  3

8. (1) A large number of common substances present acute respiratory hazards. So, (2) they should be dispensed and handled only where there is adequate ventilation, and consequently, (3) they should not be used in a confined area.

A.  B.  C.  D.  E.  Not
1 |  2 & 3 |  2  3 |   |  an
\ /  2 |         \ /                  argument
2  3 |  1  1  
2

9. Because (1) the things in our mind influence us all the more powerfully for being unconscious, (2) it is essential for anyone who intends to make progress in self-improvement to identify those things, and (3) to understand their meaning.

A.  B.  C.  D.  E.  Not
2  3 |  2 & 3 |  1 |   |  an
\ /  2 |         \ /                  argument
1 |  1  2  3

10. (1) The first time we do anything is always the best because (2) there is nothing to compare it to and so (3) we tend not to judge it as we experience it for the first time.

A. 2 3  B. 2  C. 2 & 3  D. 1  E. 2
    \ 3  \
    1  \ 1
    1  2 3

11. (1) Death permits the renewal of life. (2) Its fear is therefore the fear of life. Thus (3) our clinging to life is due to our fear of life.

A. 2 3  B. 1  C. 2 & 3  D. 3  E. 3
    \ 2  \
    2  \ 2
    1  \ 1
    3

12. (1) Mexico is the most festive place on earth. (2) A sport-fisherman’s haven. (3) Many record-breaking swordfish, marlin, and sailfish have been hooked in Mexico’s waters. (4) The Mexican Riviera gives you the best of elegant resort and Old World charm.

A. 2 & 3  B. 2 & 3 & 4  C. 1 & 2 & 3  D. 3  E. 3
    \ 4  \
    1  \ 2 & 4

13. (1) The content and requirements of this course are described in great detail in the course syllabus. That means that (2) there will be lots of work in this course, and thus, (3) I will not be able to handle all the work. That is why (4) I now feel overwhelmed and anxious.

A. 1 & 2  B. 1  C. 1 2  D. 2 & 3  E. 1
    | 3  \
    | 2  \
    | 1 2 & 3

14. (1) Some researchers now believe a potbelly may be healthier for you than a super-lean stomach. According to a physiology professor, (2) there are some health benefits to having a bulging belly. (3) Studies show people who are up to 25% overweight have a lower risk of lung cancer, osteoporosis and hip fractures than their skinnier counterparts. In addition, the professor says that, contrary to popular belief, (4) thin folks have a greater risk of dying from cardiovascular disease than chubby ones.

A. 3 & 4  B. 1  C. 4  D. 2 3  E. 3 4
    | 2  \
    | 2  \ 1 & 2
    | 3  \
    | 1  \ 1
    | 4

15. As (1) the activities of those two groups vary from party affiliation to the sports in which they participate, (2) they follow distinct lines of activity. Thus, although (3) they are not different racially, (4) they proceed in their own cultural track, and (5) rarely interact with other ethnic groups.

A. 1 B. 1 C. 2 D. 2 E. 1

2 2 1 1 2

16. (1) Bicycle riding is the ideal form of land transportation because (2) it is faster than walking or running, (3) does not exploit animals or people, (4) does not pollute, and (5) promotes the health of the rider.

A. 1&2&3&4 B. 2&3&4&5 C. 1&2&3 D. 2&3 4 5 E. 2 3 4 5

17. According to new research (1) a small daily dose of bright sunlight is actually good for you. (2) Sunlight is necessary for the skin to produce vitamin D, (3) which is essential for building strong bones and (4) protecting women against breast cancer. (5) In one study, women who were exposed to sunshine every day for 10 to 15 minutes were up to 40% less likely to develop breast cancer than those who rarely caught any sunlight.

A. 1&2&3&4 B. 5 C. 1&2&3 D. 3 4&5 E. 2 3 4 5

18. (1) Tap water leaves residue on kitchen and bathroom fixtures for the following reasons: (2) the water comes from regions containing calcium and magnesium; (3) the water dissolves these minerals, (4) which remain dissolved all the way to our fixtures. (5) When the water evaporates on those fixtures, it leaves these minerals behind.

A. 1&2&3&4 B. 2&3&4&5 C. 1&2&3 D. 2&3 4&5 E. 2

19. Because (1) new carpeting is expensive, (2) sets a rooms tone, and (3) will presumably be underfoot for several years, (4) color, (5) texture, (6) durability, and (7) life-style considerations should be taken into account before a final decision is reached.

A. 1&2&3 B. 1&2&3&4 C. 1 D. 4&5&6&7 E. 1&2&3&4&5&6
20. **(1)** {Quality childcare is a valuable resource for the many millions of young children living in families with working parents}. **(2)** {It gives single parents a chance to find jobs} and **(3)** {the flexibility to keep them}. **(4)** {It allows both mothers and fathers to contribute to family income}. And **(5)** {it helps many young children to be ready to learn when they enter school}.

A. 1&2&3&4  B. 2&3&4&5  C. 1&2&3  D. 2&3 4 5  E. 2 3 4 5

21. **(1)** {Working cowboys regard the wave of cowboy hype with mixed feelings}. **(2)** {Some denounce the trendy fad as an encroachment on a sacred sanctuary}. While **(3)** {others see it as a compliment}. **(4)** {The cowboy look is a positive state of mind to some people:} **(5)** {whenever they want to feel independent and self-reliant, they dress-up and act like cowboys}.

A. 5  B. 1  C. 5  D. 1  E. Not

22. **(1)** {You should not buy a new car right now!}. Here are reasons why: **(2)** {You can’t afford it right now}. **(3)** {The car you currently own is just fine}. **(4)** {It will cause your insurance costs to rise}, and **(5)** {your current insurance is already too high}.

A. 1 3 4&5  B. 2&3&4&5  C. 2&3 4&5  D. 3 5  E. 3 5

ANSWERS

1. Note that what I label as statement (2) in fact contains three statements. I group them all into a single statement in order to simplify the diagram. However, when assessing the truth of reasons, we must be able to identify all the statements used as reasons, but in this exercise I’m more interested in helping you to see certain aspects of the structure of the reasoning. In this passage the author is not using either reason indicators (e.g., “since”, “because”, “as”, “for”, etc.) or conclusion indicators (e.g., “so”, “therefore”, “hence”, “consequently”, “thus”, etc.) to communicate to his/her audience how s/he intends to use the statements in their reasoning. Yet the author does seem to be trying to give reasons either to support the truth of a conclusion or explain why an event has occurred. When such a situation occurs, one technique to help us to interpret the likely intended use of statements is the “THEREFORE” TEST. You have seen its use when dealing with arguments or explanations that have only one reason; I will now illustrate one way of using it when there is more than one reason. We are given the following reasoning:

**(1)** {The world has never seen a watch like this one}. **(2)** {It automatically shows the local time and date as well as the time in every other zone around the world}. **(3)** {It even features a power reserve display}.

I will first explore the possibility whether the reasoning goes from (1) to (2), or from (2) to (1), so I will temporarily discard (3).

**STEP 1: **Insert (mentally, or in writing) the reason/conclusion indicators that clearly identify for you a reason and its conclusion. For example:
(a) (1) {The world has never seen a watch like this one}. FOR (2) {It automatically shows the local time and date as well as the time in every other zone around the world}. 2Æ1

(b) (1) {The world has never seen a watch like this one}. CONSEQUENTLY (2) {It automatically shows the local time and date as well as the time in every other zone around the world}. 1Æ2

In (a) my insertion of “for” between (1) and (2), results in the inference “(2) so (1)”, symbolically represented by “2Æ1”. In (b) the insertion of “consequently” between (1) and (2) results in the inference “(1) so (2)”, symbolically represented by “1Æ2”.

STEP 2: Evaluate the strength of either the supportive connection (in the case of arguments) or the explanatory connection (in the case of explanations). In the case of interpretation (a), statement (2) gives properties that make the watch a rare item, and rarity partly explains why the world has not seen such a watch. So, (a) is at least initially a reasonable interpretation. In the case of interpretation (b), if it is interpreted as an explanation, then statement (1) is not the kind of reason that would explain what (2) describes.

If (b) is interpreted as an argument, 1Æa2, (1) does not provide reasonable support for (2), for such an inference is vulnerable to counterexamples:

It is possible that this watch automatically shows the local time and date as well as the time in every other zone around the world [the given reasons are granted]; AND At least some small number of people besides the designers of the watch have seen it [this proposition helps us to understand how the reasons can be true and the conclusion false]; AND

It is false that the world has never seen a watch like this one [the conclusion is negated].

This counterexample is successful because it helps us to understand how it’s possible for (2) to be true and (1) false. Given the commercialization of products in our world, this counterexample is very likely, and consequently, the strength of the support is very weak.

If (b) is interpreted as an explanation, 1Æe2, it is a bad explanation because (1) is not the kind of reason that explains what (2) describes.

Therefore, interpretation (a) is the more charitable one.

We use the same preceding procedure to explore the relation between statements (1) and (3).

STEP 1 Insert (mentally, or in writing) the reason/conclusion indicators that clearly identify for you a reason and its conclusion. For example:

(a) (1) {The world has never seen a watch like this one}. FOR (3) {It even features a power reserve display}. 3Æ1

(b) (1) {The world has never seen a watch like this one}. CONSEQUENTLY (3) {It even features a power reserve display}. 1Æ3

STEP 2 Evaluate the strength of either the supportive connection (in the case of arguments) or the explanatory connection (in the case of explanations). In the case of interpretation (a), statement (3) gives a rare property of watches, and just as in the previous case, rarity partly explains why the world has not seen such a watch. So, (a) is at least initially a reasonable interpretation. In the case of interpretation (b), if it is interpreted as an explanation, then statement (1) is not the kind of reason that would explain what (3) describes. If (b) is interpreted as an argument, it is vulnerable to the same kind of counterexample described above.

Therefore, interpretation (a) is the more charitable one.

We must next examine whether there is an supportive or explanatory relation between (2) and (3) (i.e., whether 2Æa3, or 3Æa2, or 2Æe3, or 3Æe2, or none of these). There are no reason/conclusion indicators between statements (2) and (3). Because of the many counterexamples against either “(2) so (3)” or “(3) so (2)”, whether they are interpreted either as arguments or explanations, it is more charitable not to attribute any reasoning between these two claims.
At this stage of analysis, I have eliminated answers (A), (B), and (E). Given that events described statements (2) and (3) explain the event described in (1), are these reasons independent of each other or are they dependent (linked), as depicted in (C)? Since I don’t have the context of this argument, and I can’t ask the author for relevant clarifications, I will further guide my interpretation according to the principle of charity. A reason can support or explain by itself only if by itself it is sufficient for its conclusion. So, I must now compare the strength of the causal relation in the following causal explanations: 2 → e1 and 3 → e1 in diagram (D) to that in (2&3) → e1 in diagram (C).

Note how strongly stated the conclusion is: “The world has never seen a watch like this one”. In this particular case, I need to clarify “world”, because its vagueness affects the truth of the conclusion. If it means, “no one has ever seen a watch like this one”, then the conclusion is necessarily be false, for (assuming that it was invented by humans, and that one must see what one invents) its inventors would certainly have seen it before, even if it were the inventors themselves who are presenting this argument. So, a more charitable interpretation of conclusion (1) is that “many people from many countries have never seen a watch like this one”.

Since (2&3) together provide a stronger explanatory connection to the event described in (1) than either (2) by itself or (3) by itself. Therefore, the more charitable interpretation is that (2) and (3) are dependent reasons. So diagram (C) is the correct one. This is an example of EXPLANATORY DEPENDENCE: the reasons are linked because together they provide the strongest explanation. You can see with this simple example that evaluative tools are sometimes used to interpret an argument.

Here is a summary of the “THEREFORE TEST”: mentally insert your favorite pairs of indicators (e.g., since/therefore, because/so, for/consequently, etc.); apply them one at a time; identify the inferences or explanations resulting from the use of each indicator; evaluate the two resulting inferences or explanations: and chose the interpretation that results in the strongest support (The last step in the summary is an application of the INTERPRETIVE PRINCIPLE OF CHARITY/GENEROSITY.)

2. In this example there are exactly three statements, and in order to understand the third one, I have made explicit, between “[“ and “]”, what is left unstated in the third statement:

Because (1){you are responsible for any injuries or damage caused by an improperly installed or operated electric generator}, (2){your smart safety practices will protect you} and (3){your smart safety practices will protect work crews employed by your local electric utility}. There is a reason indicator, “because”, which informs us that statement (1) is used as a reason. This already eliminate answers (C), (D), and (E). Statement (1) does provide some support for (2), so there is the likely inference 1 → 2. What is the relation between (2) and (3)? I will use again the “THEREFORE” TEST:

(a) (2){Your smart safety practices will protect you} THEREFORE (3){your smart safety practices will protect work crews employed by your local electric utility}. 2 → 3

(b) (2) Your smart safety practices will protect you BECAUSE (3){your smart safety practices will protect work crews employed by your local electric utility}. 3 → 2

In (a) the argument has the structure 2 → 3, which is rather weak support because of many counterexamples, e.g., your safety practices might have nothing to do with the many different kinds of work that the electric utility employees undertake. This thus eliminates answer (B). In (b) the argument has the structure 3 → 2, which is valid because in this context it’s impossible for (3) to be true and (2) false, for all the actions that they could do regarding the installation and operation includes all your actions.
Though I now realize that (3) logically implies (2), this does not mean that (F) is the correct answer. For the way the argument is presented does not suggest that the author intends to use (3) as a reason for (2). I am now following the INTERPRETIVE PRINCIPLE OF LOYALTY/FIDELITY. According to this principle, we interpret an argument or explanation according to the intentions and goals the author. These intentions are suggested by the author’s use of reason/conclusion indicators, the context, and the way s/he uses key words or the way s/he presents his/her reasoning. If the author had intended to use (3) as a reason for (2), s/she would very likely have presented the argument differently. The way it is presented now, and the use of the conjunction “and” between (2) and (3) suggest that (1) is used as a reason for both (2) and (3). The author is trying to identify the consequences that arise from one’s the improper installation or operation of an electric generator, and s/he has identified two of those consequences. The fact that it just so happens that (3) also implies (2) seems irrelevant in this limited context. Hence, the correct answer is (A).

3. Note that what I label as statement (2) in fact contains four statements: The way you love me is strong; the way you love me is wild; the way you love me is slow; the way you love me is easy. What I have labeled as statement (3) in fact contains two statements: You love me with your complete heart; you love me with your complete soul. Since there are no reason or conclusion indicators, I will use the “THEREFORE” TEST:

(a) (1)But {I love the way you love me}. **THEREFORE** (2){Strong and wild, slow and easy}. (3){Heart and soul, so completely}.

(b) (1)But {I love the way you love me}. **WHY? BECAUSE** (2){Strong and wild, slow and easy}. (3){Heart and soul, so completely}.

According to interpretations (a), there is the following reasoning: 1→2, and 1→3. Of course (1) is not sufficient for either (2) or (3): someone might love the way they are loved, but given the great variety of tastes on such intimate matters, that person might not like to be loved in the way described in (2) or (3). Therefore, both 1→2 and 1→3 are invalid. According to interpretation (b), the reasoning is (2&3)→1. It is vulnerable to a similar counterexample: someone might be loved in a the way described in (2) and (3), but again given the great variety of tastes on these personal matters, that person might not love *that* way s/he of being loved. Therefore, both interpretations give us invalid arguments.

The point I want to illustrate here is that we should not just apply any technique that pops up in minds to interpret a passage. In this case, there are no reason/conclusion indicators, and so we immediately applied the “therefore” test. Before employing any technique, we should examine carefully the way the passage is presented, and look for as many linguistic and contextual clues as to determine how the author intends to use his/her statements.

In this passage the statements seem to be simply presented as facts. No statement is presented as being doubtful and as requiring to be supported. We generally argue only in order to diminish or eliminate doubt. Hence, this passage is not argumentative. The fact that statements (2) and (3) simply number different qualities of the way someone is loved suggests that these two statements have the same function. The author seems to be trying to help us understand why s/he loves the way s/he is loved: statements (2) and (3) seem to function as reasons that causally explain (1). Reasons (2) and (3) are definitely causally relevant to (1), even though they are not be sufficient to make (1) happen. Since the reasons provide a stronger causal connection (as opposed to a stronger supportive connection if the reasoning had been an argument) to (1) when they are linked, as in diagram (C), than when they are independent, as in diagram (D), the correct answer is (C). This is an example of the EXPLANATORY DEPENDENCE of reasons.
4. The use of “therefore” indicates that statement (3) is used as a conclusion. This is the first exercise in which we can immediately identify a conclusion. The conclusion is the ideal place to begin in the analysis of an argument or explanation, because a careful examination of a conclusion can help us to identify the kinds of reasons it requires: (a) We examine how strongly stated the conclusion is, for the more strongly stated the conclusion, the more support it needs. (b) We identify all the central ideas (concepts) in the conclusion. (c) We look for these ideas in each reason. (d) If these central ideas identified in the conclusion are located in different reasons, then those reasons are dependent (linked). In other words, if a reason has only one of those ideas identified in the conclusion, it must be linked to other (explicit/given or implicit/unstated) reason(s) that has (have) the other central ideas. We continue linking reasons until all the central ideas of the conclusion are grouped among the reasons. (e) If all the grouped explicit/given reasons still lack a central idea used in the conclusion, then there is an unstated (implicit) reason that contains that central idea.

The central concepts in the conclusion (3) are “progress”, “depends upon”, “unreasonable man”, and “only”. The presence of “unreasonable man” indicates that statement (2) is a reason for (3). The expression, “only”, indicates the unreasonable man is contrasted to someone else; and in this limited context this can only be the reasonable man in statement (1). Since the conclusion needs both concepts of reasonable and unreasonable men, then reasons (1) and (2) are dependent (linked). Consequently, the correct answer is (C). This is an example of CONCEPTUAL DEPENDENCE. The other central concepts in conclusion (3) imply that there are at least one or more implicit reasons containing the concepts of progress and the relation of dependence.

5. In this passage no statement is explicitly used to support another statement (e.g., by means of reason/conclusion indicators); there does not seem to be any attempt to diminish or eliminate doubt, or to convince someone to believe or do something, or to resolve a disagreement or conflict; hence, there does not seem to be an argument here. Since no fact referred to in a statement is used to explain some other fact, there does not seem to be an explanation. It would also be uncharitable to attribute any argument or causal explanation in this passage, for in either case it they would be extremely weak. We get a more reasonable passage when we simply interpret it as a description. Thus, the correct answer is (E).

6. Note that the fully explicit statement (2) is \{Peace, born of conflict,\} is like the serenity and quietness following the storm, with its fresh purified air \}. The conclusion indicator, “as a result”, indicates that the author intends to use statement (3) as a conclusion. The central concepts in (3) are that of arising confidence. We must look for similar concepts, or for statements that would support or explain arising confidence. Statement (2) clearly supports (3), so this eliminate answer (D). How relevant is (1) to (3)? Statement (1) just tells us what peace is not, and this is not enough to provide support for (3). To say that (1) supports (3) would be similar to saying, “X is not cyanide, so health arises from eating X”, which is silly because X could be many other kinds of poisons or non-nutritious substances. Hence, to interpret (1) as a reason for (3) would not be a charitable interpretation. So, this eliminates answers (A) and (C). Similar criticism applies to the inference 1 \(\rightarrow\) 2 in diagram (B), so answer (B) is also eliminated. Thus, the correct answer is (E). Note that (2) logically implies (1), but the passage is not presented in a way that suggests that the author intends to use (2) to support (1). It is just an incidental fact of this passage that (2) logically implies (1). This illustrates that not all logical implications of statements are part of an argument. There is an argument if and only if someone uses statements to support some other statement (i.e., the conclusion). There is a causal explanation if and only if someone uses statements to refer to events that causally explain an event referred to in the conclusion.
7. The conclusion indicator, “consequently”, tells us that statement (3) is used as a conclusion. It contains concepts of species, being created at the same time, and a negation. The first two concepts are located in statement (1), and the concept of negation is in statement (2). Therefore, statements (1) and (2) are linked to support conclusion (3). So, this passage illustrates CONCEPTUAL DEPENDENCE.

This passage illustrates another kind of dependence. We must first notice that this argument has a LOGICAL FORM. In order to identify its form we must identify its propositions. Consider the argument again, except now I have highlighted the words that provide the logical form:

(1) If all species were created at the same time, then all vertebrates would make their first appearance in the fossil rocks of the same age. But (2) it is not true that all vertebrates have made their first appearance in the fossil rocks of the same age. Consequently, (3) not all species were created at the same time.

Let the letter C stand for the proposition: all species were created at the same time. Let the letter M stand for the proposition: all vertebrates would make their first appearance in the fossil rocks of the same age. Hence, the logical form of this argument is:

(1) If C, then M. (2) Not-M. So, (3) Not-C. This is a valid argument form because it’s impossible for any argument identical in form to have true reasons and a false conclusion. In this passage statements (1) and (2) are linked because together they form part of a logical form. This is also an example of LOGICAL DEPENDENCE.

8. The interpretation of this passage is greatly facilitated by the use and location of two indicators. The use of the conclusion indicator, “so”, means that statement (2) is used as a conclusion; and since only statement (1) precedes (2), then (1) is the reason for (2). (CAREFUL: the word “so” has other uses, so don’t mistakenly assume that every “so” introduces a conclusion.) This eliminates answers (C), (D), and (E). The use of the conclusion indicator, “consequently”, means that (3) is a conclusion.

We must now choose between answers (A) and (B). A core concept in (3) is that of confined area, and the concept that is the most closely related to it in (1) and (2) is that of adequate ventilation in (2). So, this is evidence in favor of diagram (B). The successive uses of the conclusion indicators also suggests that diagram (B) is the best representation of the structure of the reasoning. Therefore, the correct diagram is (B).

9. The author’s use of “because” communicates to us that s/he is using statement (1) as a reason. This thus eliminates answers (A), (C), and (E). If we are to follow the INTERPRETIVE PRINCIPLE OF CHARITY/GENEROSITY, we must ask ourselves: Which reason provides the strongest support for (3), (2) in diagram (B), or (1) in diagram (D)?

First, consider the inference 2\(\Rightarrow\)3, in diagram (B):

(2) It is essential for anyone who intends to make progress in self-improvement to identify those things that influence him/her unconsciously, THEREFORE (3) it is essential for anyone who intends to make progress in self-improvement to understand their meaning.

Granting the reasonable unstated assumption that once we have identified unconscious influences, it is necessary understand their meaning in order to make progress in self-improvement, then (3) logically follows from (2). So, this would definitely be a charitable way of interpreting the passage.

Secondly, consider the inference 1\(\Rightarrow\)3, in diagram (D):
The things in our mind influence us all the more powerfully for being unconscious, THEREFORE it is essential for anyone who intends to make progress in self-improvement to understand their meaning.

Granting the reasonable unstated assumptions that in order to progress in self-development it is necessary to understand the meaning of things in our minds that influence us unconsciously, then (3) logically follows from (1). Hence, this too would clearly be a reasonable interpretation.

Since both interpretations result in valid arguments, we must now focus our attention on the reasonableness of the assumptions required to make the arguments valid. We should pick the interpretation that rests on the most reasonable tacit assumption. However, the assumptions are basically the same. Therefore, the interpretive principle of charity does not resolve the matter here.

According to the INTERPRETIVE PRINCIPLE OF LOYALTY/FIDELITY, we must focus on the way the author presented his/her argument. S/he used the conjunction “and” between statements (2) and (3), rather than a reason/conclusion indicator, this suggests that s/he did not intend to use (2) to support (3). (NOTE, we can only say that it “suggests” this because sometimes authors will not make fully explicit their intended inferences and incorrectly use a conjunction when they should be using a reason/conclusion indicator.) This is a reason against the interpretation represented by diagram (B). The use of “and” between statements (2) and (3) is consistent with the interpretation depicted by diagram (D). Therefore, the correct answer is (D).

10. This passage uses the reason indicator “because” and the conclusion indicator “so”, but their location in the passage requires us to be careful. The use of “because” in front of (2) means that (2) is used as reason. This eliminates answer (D). The use of “so” in front of (3) means that (3) is used as a conclusion. This eliminates answers (A) and (C). How do we decide between the remaining diagrams (B) and (E)? We must now focus on the concepts inside each statement. In (3) it is stated that there is no judging. In order to judge anything (to be good, or bad, etc.) it is necessary to compare it to something (e.g. a model, standard or criterion). Granting this necessary condition, then (2) logically implies (3). Given this logical implication and the use of “so” between (2) and (3), it is reasonable to interpret (2) as a reason for conclusion (3). Statement (3) contains the concept of experience, and (1) refers to experience through the concept of doing, so there is a conceptual connection from (3) to (1). Since it is through common concepts that statements can be made to connect logically to each other (by adding the appropriate implicit reasons), it is reasonable to interpret (3) as supporting (1), even though (3) by itself does not logically imply (1). The correct answer is (B).

11. There are two conclusion indicators in this passage, and their location greatly facilitate our interpretation. The use of “therefore” inside (2) indicates that (2) is used as a conclusion. This eliminates answers (A) and (C). Since only (1) precedes (2), then (1) is used as a reason to support (2). This eliminates answer (E). The use of “thus” in this context indicates that (3) is used as conclusion. (CAREFUL: “thus” can be used in other ways, so do NOT assume that it always introduces a conclusion. Though “due to” often functions as a reason indicator, it is used in (3) to express a causal claim.) How do we choose between (B) and (D)? We must focus on the concepts in the statements. The concept of the fear of life in common to both (2) and (3), but (1) includes death and the renewal of life, neither of which are present in (3). Since it is through common concepts that statements can be made to connect logically to each other (by adding the appropriate implicit reasons), it is reasonable to interpret (2) as a reason for conclusion (3). Consequently, (B) is the correct answer.

12. There seems to be an attempt to convince us to believe (1), and reasons are given, but there are no reason/conclusion indicators, so we will have more interpretive work to do. Here is a variation on the
“THEREFORE” TEST: Mentally insert questions between statements to help you to look for either supportive or explanatory connections between statements. For instance:

(1) {Mexico is the most festive place on earth}. WHY? What is the EVIDENCE? (2) {A sport-fisherman’s haven}. WHY? What is the EVIDENCE? (3) {Many record-breaking swordfish, marlin, and sailfish have been hooked in Mexico’s waters}. (4) {The Mexican Riviera gives you the best of elegant resort and Old World charm}.

The concept of a sport-fisherman’s haven in (2) relates to the concept of a festive place (at least for fishermen, and the catching of many fish would be reason for them to celebrate), and it is reasonable to use (2) as evidence for (1). This thus eliminates answer (C). The concept of record-breaking fish in (3) certainly relates to the notion of a fisherman’s haven in (2), and (3) would definitely be good evidence for (2). So, statement (3) is very likely intended to be used as a reason for (2). This eliminates answers (A) and (B). Statement (4) is not about fish, but instead gives further evidence for statement (1). So, (4) is very likely intended to be employed as an evidence for (1). The only difference between the interpretations represented by either (D) or (E) is that in (D) statements (2) and (4) are independent, while in (E) they are dependent (linked).

Is either (2) by itself or (4) by itself sufficient for (1)? First consider $2 \Rightarrow 1$ in (D). Here are some counterexamples by possible conjunction against that inference:

It is possible that it’s a sport-fisherman’s haven, AND there’s no entertainment, OR the food is terrible, OR the people are very gloomy, OR the service is terrible, etc. AND Mexico is NOT the most festive place on earth.

Each possibility helps us to understand how it is possible for (2) to be true and (1) false, so (2) is not sufficient for (1): the inference is invalid.

Secondly, consider $4 \Rightarrow 1$. Here are counterexamples by possible conjunction:

It is possible that the Mexican Riviera gives you the best of elegant resort and Old World charm. AND there is nothing to do there, OR the entertainment is terrible, OR the activities are boring, the fishing is terrible, etc. AND Mexico is NOT the most festive place on earth.

Each possibility helps us to understand how it is possible for (4) to be true and (1) false, so (4) is not sufficient for (1): the inference is invalid.

However, if we link (2) and (4), as illustrated in diagram (E), statement (2) helps to eliminate one counterexample against $4 \Rightarrow 1$ (i.e., the possibility that the fishing is terrible), and statement (4) helps to eliminate one counterexample against $2 \Rightarrow 1$ (i.e., the possibility that service is terrible). Therefore, when (2) and (4) are linked, the support for (1) is increased. The support for (1) is greater from (2&4) than either from (2) by itself or from (4) by itself. Therefore, the correct answer is (E). This is an example of SUPPORTIVE DEPENDENCE.

13. In “That means that”, the impersonal pronoun “That” refers to statement (1), and the conclusion indicator “means that” shows that the author intends to use (1) as reason for conclusion (2). This eliminates answers (A), (C), and (D). The use of “thus” in this context means that the author intends to use (2) as a reason for conclusion (3). (CAREFUL, “thus” has other functions, so do not always interpret it as a conclusion indicator.) In the conclusion in indicator, “That is why”, the impersonal pronoun “That” refers to statement (3), and this indicator indicates that the author intends to use (3) as a reason for conclusion (4). The correct answer is (B).
14. The author does appear to be trying to convince us that (1) is true, and seems to be giving reasons, but there are no indicators in this passage. Consider the following “THEREFORE” TEST:

(1) [Some researchers now believe a potbelly may be healthier for you than a super-lean stomach]. WHY? What’s the EVIDENCE? BECAUSE According to a physiology professor, (2) [there are some health benefits to having a bulging belly]. WHY? What’s the EVIDENCE? BECAUSE (3) [Studies show people who are up to 25% overweight have a lower risk of lung cancer, osteoporosis and hip fractures than their skinnier counterparts]. In addition, the professor says that, contrary to popular belief, (4) [thin folks have a greater risk of dying from cardiovascular disease than chubby ones].

Statement (2) provides some evidence for (1). This eliminates answers (B) and (C). Statement (3) provides some evidence for (2). This eliminates answer (D). The use of “in addition” after (3) tells us that the author intends to use (4) with (3) to support (2). There is also stronger support for (2) from (3&4) together than either (3) by itself or (4) by itself (i.e., SUPPORTIVE DEPENDENCE) Therefore, the correct answer is (A).

15. In this context “As” is used as a reason indicator. (CAREFUL: “as” has other functions, as illustrated in this sentence and in the preceding one.) So, (1) is used as a reason for at least one of the statements that come after it. Given the structure of this sentence, (1) is used as a reason for conclusion (2). In fact, (1) helps to explain (2). This eliminates answers (C) and (D). In this context “Thus” is used as a conclusion indicator, but we must be careful here because a discount expression, “although”, immediately follows “thus”. Study the worksheet and do the exercises on discount expressions in order to understand their argumentative function. These expressions concede a statement that may not necessarily be part of an argument or explanation. If we examine the content of (2), we can see that it helps to explain (4) and (5). This eliminates answer (E). The only difference between the interpretations represented by diagrams (A) and (B), is that in (A) statement (2) is a reason for (3). Let’s look at their content to determine whether this is a charitable interpretation. Statement (2) would support or explain more strongly the contradictory of (3) than (3) itself, so this would not be a charitable interpretation. Moreover, the author’s use of “although” just before (3) suggests that s/he is just conceding (3). Therefore, the correct answer is (B).

16. The use of “because” in this sentence indicates that statement (2) and possibly one or more statements following it function as reasons for (1). Statements (3), (4), and (5) are similar to (2) in the sense that they describe beneficial consequences of riding a bicycle, and each one supports (1). It is thus reasonable to interpret (2), (3), (4), and (5) as reasons supporting (1). This eliminates answers (A) and (C). Are the reasons linked? Note that the conclusion is rather strongly stated: it is “the ideal” form of land transportation. No single reason (e.g., answer (E)) or group of reasons (e.g., answer (D)) is sufficient for the truth of (1). The reasons provide stronger support for (1) when they are linked, as illustrated in (B). So, (B) is the correct answer. This is a case of SUPPORTIVE DEPENDENCE.

17. The author appears to be trying to convince us of the truth of (1) by giving reasons. This eliminates answers (A) and (C). There are no reason/conclusion indicators. Consider the following application of the “THEREFORE” TEST:

According to new research (1) [a small daily dose of bright sunlight is actually good for you]. WHY? What’s the EVIDENCE? BECAUSE (2) [Sunlight is necessary for the skin to produce vitamin D], (3) [which is essential for building strong bones] and (4) [protecting women against breast cancer]. WHY? What’s the EVIDENCE? BECAUSE (5) [In one study, women who...
were exposed to sunshine every day for 10 to 15 minutes were up to 40% less likely to
develop breast cancer than those who rarely caught any sunlight).  

Statements (2), (3), and (4) work together to provide some evidence for (1), since (3) and (4) elaborate on properties of vitamin D, which is presented in (2). [This is a different kind of CONCEPTUAL DEPENDENCE that is relevant in determining whether reasons are working together or apart.]. This eliminates answers (D) and (E). The content of (5), which is about cancer, relates to the content of (4) more so than to the content of (2) and (3); and (5) provides some evidence for (4). Hence, it is reasonable to interpret (5) as functioning as a reason for (4). Therefore, the correct answer is (B).

18. The expression, “for the following reasons” indicates that the statements following it are intended by the author to function as reasons for (1). This eliminates answers (A) and (C). Statements (2), (3), (4), and (5) all share similar content that helps us to understand why (1) is true. This is a causal explanation. These statements provide a stronger explanatory link to the event described in (1) when they are linked (e.g. answer (B)) than when they are separate (e.g., answer (D)). So this eliminates answer (D). The inference 2Æ3 in (E) is invalid. This can be shown by means of a COUNTEREXAMPLE BY ANALOGY. First we identify the form of the argument: The water comes from regions containing X, so the water dissolves X. Secondly, here are arguments identical in form having a true reason and a false conclusion: The water comes from regions containing fish, clams, oysters, crabs, swimming humans, boats, etc., so the water dissolves the fish, clams, oysters, crabs, swimming humans, boats, etc. Each one of these counterexamples by analogy proves that any argument of that form is invalid, even the arguments with true reasons and a true conclusion. For instance, these same counterexamples by analogy prove that the argument, “The water comes from a region containing salt, so the water dissolves the salt” is invalid. The correct answer is thus (B).

19. The use of “Because” means that one or more statements coming after “because” are used as reasons. The challenge we face with this example is to determine which statements are reasons and which are the conclusions. We must examine the content of the claims closely. Where does the content cease to relate to properties of new carpeting? One way of doing this is to make explicit what is implicit in the given reasons, and note where it stops making sense:

Because (1){new carpeting is expensive}, (2){[new carpeting] sets a rooms tone}, and (3){[new carpeting] will presumably be underfoot for several years}, (4)*{[new carpeting]color}, (5){texture}, (6){durability}, and (7){life-style considerations should be taken into account before a final decision is reached}. 

It stops making sense at statement (4). We can similarly make explicit what is unstated in the final statements, and see where it stops making sense as we work our way backwards from (7):

Because (1){new carpeting is expensive}, (2){sets a rooms tone}, and (3)*{will presumably be underfoot for several years [should be taken into account before a final decision is reached]}, (4){color [should be taken into account before a final decision is reached]}, (5){texture [should be taken into account before a final decision is reached]}, (6){durability [should be taken into account before a final decision is reached]}, and (7){life-style considerations should be taken into account before a final decision is reached}.

As you can see, it stops making any sense at statement (3). This means that statements (1), (2), and (3) function as reasons for conclusions (4), (5), (6), and (7). This eliminates answers (B), (D), and (E). Statement
(1) would be a terrible reason for (2), so this eliminates answer (C). The most charitable interpretation from the choices given is answer (A).

20. The author appears to be trying to convince us to believe (1), and is giving us reasons. This eliminates answers (A) and (C). Since there are no reason/conclusion indicators, here’s one way of using the “THEREFORE” TEST:

(1){Quality childcare is a valuable resource for the many millions of young children living in families with working parents}. WHY? What is the Evidence? BECAUSE (2){It gives single parents a chance to find jobs} and (3){the flexibility to keep them}. (4){It allows both mothers and fathers to contribute to family income}. And (5){it helps many young children to be ready to learn when they enter school}.

The statements (2), (3), (4), and (5) all provide support for (1). This eliminates answers (A) and (C). Conclusion (1) is strongly stated in the sense that it is about “many millions” of young children. The strongest support for (1) occurs when all the reasons are linked. [This is an example of SUPPORTIVE DEPENDENCE.] So, (B) is the correct answer.

21. The author does appear to be trying to convince us to believe (1), and is giving reasons. Since there are no reason/conclusion indicators, here’s one way of applying the “THEREFORE” TEST:

(1){Working cowboys regard the wave of cowboy hype with mixed feelings}. WHY? What is the EVIDENCE? (2){Some denounce the trendy fad as an encroachment on a sacred sanctuary}. While (3){others see it as a compliment}. WHY? What is the EVIDENCE? (4){The cowboy look is a positive state of mind to some people:} WHY? What is the EVIDENCE? (5){whenever they want to feel independent and self-reliant, they dress-up and act like cowboys}.

The content of (1), if it is to function as a conclusion, will require at least two contrasting sets of information, for (1) is about “mixed” feelings. Statements (2) and (3) provide that contrastive support. This eliminates answers (B), (D), and (E). Reasons (2) and (3) must be linked because neither one by itself would be sufficient to support the idea of mixed feelings expressed in conclusion (1). [This is an example of CONCEPTUAL DEPENDENCE.] This eliminates diagram (A). The content of statement (4) is positive and supports the positive content expressed in (3). Statement (5) provides some evidence for (4). Therefore, the correct answer is (C).

22. Regardless of the actual content of the argument, answer (A) should be immediately rejected because in that diagram (1) also functions as a reason, thereby resulting in a circular argument. The author is trying to convince someone not to do something, which is expressed in statement (1), and s/he is giving a number of reasons supporting (1). So, (1) is intended to function as a conclusion of an argument. In diagrams (D) and (E) statement (3) is not sufficient for (2), for it’s possible for someone to own currently a car that is just fine, AND to be able to afford a new one now. Given the current economic situation, such a counterexample is slightly improbable, for I roughly estimate the ratio of (the total number of people whose current car is just fine, and who can afford a new car now) to (the total number of people whose current car is just fine, and who either can or cannot afford a new car now) to be about 40%. This means that the support of (3) for (2) is only slightly strong. These are reasons against answers (D) and (E). In diagram (C), statements (2&3) together do provide strong support for (1), and statements (4&5) together also provide reasonable support for (1). However, it is when all four statements are combined, as in (B), that conclusion (1) gets the most support. [This is an example of SUPPORTIVE DEPENDENCE]. So, the correct answer is (B).