

e-mail second and its appendixes

← → ↺ uk.mail.yahoo.com/d/search/keyword=l.fay&folders=2/messages/9260/AFYj4LhOUhVGygvN2gyeeL8m0wE:2

Google Addons Store Amazon.co.uk eBay AliExpress Booking.com Hotels.com Facebook YouTube Cost of living and p... Dictionary, Encyclo... >> Other book

HOME MAIL NEWS FINANCE SPORT ENTERTAINMENT LIFE SEARCH SHOPPING MORE... y/mail+ Upgrade now

yahoo!mail Sent x l.fay Advanced

Compose

Inbox 28

Unread

Starred

Drafts 10

Sent

Archive

Spam

Deleted Items

^ Less

Views Hide

Photos from email

Documents

Subscriptions

← Back

(No subject) Yahoo/Sent

Tue 15 Feb 2022 at 15:59

To: L. Fay

Download all attachments as a zip file

APPENDIXPNG 65.8kB

APPENDIX F... .jpg 3.3MB

APPENDIX L... .pdf 303.1kB

APPENDIXPNG 32.3kB

APPENDIX FOUR.PNG

fastway

2022-02-02 22:33:42 Region: Midlands
Courier/Sorter: NSZ
Label: 3C1000242157

Recvd In Depot: Inbound Freight
We've received your parcel in our depot, it will be out for delivery within the delivery service timeframe you requested.

2022-02-03 08:53:11 Region: Midlands
Courier/Sorter: 475
Label: 3C1000242157

On Board with Courier
Your parcel is on the way! Our courier loaded it onto their van.

2022-02-03 08:05:11 Region: Midlands
Courier/Sorter: 475
Label: 3C1000242157

Signature captured on paper.
Your parcel has been delivered and a signature received.

e-mail second

uk.mail.yahoo.com/d/search/keyword=l.fay&folders=2/messages/9260/AFYj4LhOUhVGygvN2gyeeL8m0wE:3

Google Addons Store Amazon.co.uk eBay AliExpress Booking.com Hotels.com Facebook YouTube Cost of living and p... Dictionary, Encyclo...

HOME MAIL NEWS FINANCE SPORT ENTERTAINMENT LIFE SEARCH SHOPPING MORE... y!mail+ Upg

yahoo!mail Sent x l.fay Advanced Q Petar

Compose

Inbox 28
Unread
Starred
Drafts 10
Sent
Archive
Spam
Deleted Items
Less
Views Hide
Photos from email
Documents
Subscriptions
Travel
Folders Hide

Back (No subject) Yahoo/Sent (No subject) Tue 15 Feb 2022 at 15:59 To: L. Fay

Download all attachments as a zip file

APPENDIXPNG 65.8kB
APPENDIX F... .jpg 3.3MB
APPENDIX L... .pdf 303.1kB
APPENDIXPNG 32.3kB

Reply, Reply all or Forward

APPENDIX FOURTEEN.jpg

fastway couriers National Service 24hr

D 8 Street -2
County Kildare, R14 2
0876604148

From:
Ink Maestro Ltd
North Road Units 28 & 30 North Park
DUBLIN 11

Item 1 of 1 Print date: 02/02/2022

1-3C1000242157

Looking for an easy way to send or return an item? Visit parcelconnect

e-mail second

uk.mail.yahoo.com/d/search/keyword=l.fay&folders=2/messages/9260/AFYj4LhOUhVGygvN2gyeeL8m0wE:4

Google Addons Store Amazon.co.uk eBay AliExpress Booking.com Hotels.com Facebook YouTube Cost of living and p... Dictionary, Encyclo...

HOME MAIL NEWS FINANCE SPORT ENTERTAINMENT LIFE SEARCH SHOPPING MORE...

y!mail+ Upgrade

yahoo!mail Sent x l.fay Advanced

Petar

Compose

Inbox 28

Unread

Starred

Drafts 10

Sent

Archive

Spam

Deleted Items

Less

Views Hide

Photos from email

Documents

Subscriptions

Travel

Folders Hide

Back

(No subject)

Yahoo/Sent

Tue 15 Feb 2022 at 15:59

To: L. Fay

Download all attachments as a zip file

APPENDIXPNG 65.8kB

APPENDIX F... .jpg 3.3MB

APPENDIX L... .pdf 303.1kB

APPENDIXPNG 32.3kB

Reply, Reply all or Forward

APPENDIX LOGICAL R... Page 1 of 3

ResearchGate

Seven Basic Principles of Logical Reasoning

Article in American Laboratory · August 2008

0 0/001

1 author

10-001 Scholar

10-001 Scholar is a Polymathic Institute and State University

10-001 Scholar is a Polymathic Institute and State University

Some of the authors of this publication are also working on these related projects:

Physiology Responses to the Research of Music, Music Therapy, Brain Function View project

e-mail second

uk.mail.yahoo.com/d/search/keyword=l.fay&folders=2/messages/9260/AFYj4LhOUhVGygvN2gyeeL8m0wE:4

GoogleAddons StoreAmazon.co.ukeBayAliExpressBooking.comHotels.comFacebookYouTubeCost of living and p...Dictionary, Encyclo...Other book

HOMEMAILNEWSFINANCESPORTENTERTAINMENTLIFESearchSHOPPINGMORE...

y/mail+Upgrade now

yahoo!mail

Sent x l.fayAdvanced

PetarHome

Compose

Inbox28UnreadStarredDrafts10SentArchiveSpamDeleted ItemsLessViewsHidePhotos from emailDocumentsSubscriptionsTravelFoldersHide

Back

(No subject)Yahoo/Sent

PSTo: L. FayTue 15 Feb 2022 at 15:59

Download all attachments as a zip file

APPENDIXPNG65.8kB

APPENDIX F... .jpg3.3MB

APPENDIX L... .pdf303.1kB

APPENDIXPNG32.3kB

Reply, Reply all or Forward

APPENDIX LOGICAL R...Page 1 of 3

EDITOR'S PAGEby Daniel J. Schneck

Seven Basic Principles of Logical Reasoning

Dr. Schneck is W.S. White Distinguished Professor Emeritus of Engineering Science and Mechanics, Virginia Tech, P.O. Box 599, Blacksburg, VA 24060-0599, U.S.A., tel.: 540-552-6496, e-mail: dschneck@vt.edu.

As an "expert" consultant, I am often asked to evaluate the validity of the reasoning used by litigants to justify their claims. In many cases, I find such reasoning to be based on arbitrary axioms (unsubstantiated assumptions taken to be true without proof) and non sequiturs (conclusions that do not follow directly and logically from the arguments that led up to them). In the latter case, to be valid, arguments must be based on the following types of logical reasoning:

1. **Modus Ponens:** From the Latin *ponere*, meaning "to put," and *modus*, meaning "mode," a method of reasoning based on *propping*. In *modus ponens*, a hypothetical proposition—whether valid or invalid (the subject of another argument)—is offered ("set down") first. For example, one might propose an antecedent (literally "go before," hence, by inference, cause) of the form "If A..." Next, as a result of "A" having occurred, an effect, or consequent, is presented to follow, stated as "...then B." Finally, if the antecedent is affirmed, then so is the consequent, i.e., "If A, then B... Just A is true... therefore B is true."
2. The reasoning offered in the next-to-last sentence above goes by the name *modus tollens* (from the Latin for "removing"). It is a *modus* ("mode") of reasoning wherein, if the consequent is

Moreover, it is equally invalid to assume that if your skull was not hit hard enough with a hammer (the negation of A), then it was not exposed to a force sufficient to crack it open, because, again, that force might have originated from a variety of different sources. The latter is called an illogical Fallacy of Denying the Antecedent, emphasizing again that the antecedent might be sufficient for causing the consequent, but not necessary.

The two fallacies above result from "A" requiring the use of a hammer to supply the blow to the skull. Thus, even the reasonable assumption that the skull needs to be hit hard enough in order for it to crack, one might propose a more general argument that eliminates identifying the source of the blow: "If your skull goes hit hard enough, then it will crack open." Getting hit hard enough now becomes necessary and sufficient for cracking open (as opposed to among or defining) the skull, because now, "If A, then B" and its converse, "If B, then A," are both true. That is, if your skull has cracked open, it is reasonable to presume that it was hit hard enough to do so, or, stated in negative form, if your skull is not hit hard enough, it is likely that it will not otherwise crack open. To prove the concept of "necessary and sufficient conditions for causation," one must prove that a statement and its converse are both universally valid.

To say "If A, then B" merely asserts that A is a sufficient condition for B to occur, but not inescapably necessary.

e-mail second

uk.mail.yahoo.com/d/search/keyword=L.fay&folders=2/messages/9260/AFYj4LhOUhVGygvN2gyeel8m0wE:4

Google Addons Store Amazon.co.uk eBay AliExpress Booking.com Hotels.com Facebook YouTube Cost of living and p... Dictionary, Encyclo...

HOME MAIL NEWS FINANCE SPORT ENTERTAINMENT LIFE SEARCH SHOPPING MORE...

Upgrade n

yahoo!mail

Sent x L.fay

Advanced

Petar

Compose

Inbox 28

Unread

Starred

Drafts 10

Sent

Archive

Spam

Deleted Items

Less

Views Hide

Photos from email

Documents

Subscriptions

Travel

Folders Hide

Back

Forward

Reply

Reply all

Print

Download

Star

More

Yahoo/Sent

(No subject)

To: L. Fay

Tue 15 Feb 2022 at 15:59

Download all attachments as a zip file

APPENDIXPNG 65.8kB

APPENDIX F... .jpg 3.3MB

APPENDIX L... .pdf 303.1kB

APPENDIXPNG 32.3kB

Reply, Reply all or Forward

EDITOR'S PAGE continued

happens OR D didn't happen, then either A didn't happen OR C didn't happen—thus, if your skull did not crack open (the negation of B), in which case your skull was not struck hard enough (the negation of A), OR you did not escape unharmful (the negation of D), in which case the blow did not miss your skull (the negation of C).

5. **Hypothetical Syllogism:** A syllogism (from the Greek prefix *syn-*, meaning "together," and *logos*, meaning "a reasoning") is a type of reasoning wherein a major premise is coupled with a minor premise to deduce a conclusion drawn necessarily from the two of them. If both premises are explicit, and not constrained by qualifying conditions, the syllogism is called categorical, the classic example being: "All men are mortal (major premise); Socrates is a man (minor premise); Therefore, Socrates is mortal (conclusion)."

If at least one of the premises is conditional (i.e., constrained by an "if..." statement), the syllogism is called hypothetical. Thus, in the situation being considered herein, one might offer the major premise: "If your skull is struck hard enough (antecedent), A, containing two constraints: if your skull is struck, and if it is struck hard enough), then it will crack (consequent, B)"; and the minor premise: "If your skull cracks (B), then you might die (C)"; from which two statements one may logically conclude that, "If your skull is struck hard enough (A), then you might die (C)." Note that the hypothetical syllogism is of the form: "If A, then B; If B, then C; Therefore, If A, then C." This is quite different from saying: "If A (e.g., "If an object is human"), then B ("It is an animal"); and "If A (If an object is human"), then C ("It is bipedal"); Therefore, "If B ("If an object is an animal"), then C ("It is bipedal)," which is clearly not the case! Note, using converses, it is generally true that: "If B, then A (not all animals are human!); Therefore, If B, then C (not all bipedal animals are human!); Therefore, If B, then C (not all animals are bipedal!)." Yet another type of syllogism is this:

6. **Disjunctive Syllogism:** Here, at least one of the premises contains a disjunctive proposition, such as "or" (as opposed to the hypothetical "if"). For example, one might say, "The blow to your skull was either on target (A), or missed your head completely (B)" (major premise). Followed by: "But the blow did not miss your head completely" (minor premise, in the form of the negation of B). Thus, we conclude that, "Therefore, the blow to your skull was on target" (A). This syllogism is of the form: "Either A, or B; But not B; Therefore, A." Note: In many "and/or" situations where it is possible for both A and B to be true simultaneously, a seemingly analogous argument of the form: "A and/or B... But B exists, so A doesn't" is not valid, even though antonyms are often made to use it!

7. **Proof by Contradiction:** Finally, a type of modus inveni argument called proof by contradiction or *reductio ad absurdum* (Latin "reduction to absurdity") is a method of proving something false by showing that conclusions to which it leads are absurd, or in violation of something known to be true. So, having said that, here is a question: Are you, or are you not a Cretan if you say, "I am a Cretan," given that "All Cretans are liars?"

e-mail second

uk.mail.yahoo.com/d/search/keyword=l.fay&folders=2/messages/9260/AFYj4LhOUhVGygvN2gyeeL8m0wE:5

Google Addons Store Amazon.co.uk eBay AliExpress Booking.com Hotels.com Facebook YouTube Cost of living and p... Dictionary, Encyclo... Other bookr

HOME MAIL NEWS FINANCE SPORT ENTERTAINMENT LIFE SEARCH SHOPPING MORE...

y/!mail+ Upgrade now

yahoo!mail Sent x l.fay Advanced

Compose

Inbox 28
Unread
Starred
Drafts 10
Sent
Archive
Spam
Deleted Items
^ Less
Views Hide
Photos from email
Documents
Subscriptions
Travel

(No subject) Yahoo/Sent

PS To: L. Fay Tue 15 Feb 2022 at 15:59

Download all attachments as a zip file

APPENDIXPNG 65.8kB
APPENDIX F... .jpg 3.3MB
APPENDIX L... .pdf 303.1kB
APPENDIXPNG 32.3kB

Reply, Reply all or Forward

APPENDIX MISLEADING.PNG

Cambridge Dictionary Translate Grammar Thesaurus Cambridge Dictionary +Plus

misleading

misleading
adjective
uk ˈmɪs.lɪ.dɪŋ us ˈmɪs.lɪ.dɪŋ
causing someone to believe something that is not true:
• misleading information/statements

APPENDIX FOUR

fastway.ie/courier-services/track-your-parcel/?l=3C1000242157

apulco climate: A...  Heat Index Chart -...

[Track Parcel](#)[Our Services](#) ▾[Franchising](#) ▾[Why Fastway](#) ▾[Help & Support](#) ▾[Get a](#)

2022-02-02 22:30:42

Recvd in Depot:Inbound Freight

We've received your parcel in our depot. It will be out for delivery within the delivery service timeframe you requested

Region: **Midlands**

Courier/Sorter: **NS2**

Label: **3C1000242157**

2022-02-03 08:50:43

On Board with Courier

Your parcel is on the way! Our courier loaded it onto their van.

Region: **Midlands**

Courier/Sorter: **475**

Label: **3C1000242157**

2022-02-03 09:05:11

Signature captured on paper.

Your parcel has been delivered and a signature received.

Region: **Midlands**

Courier/Sorter: **475**

Label: **3C1000242157**

APPENDIX FOURTEEN



National Service 24hr

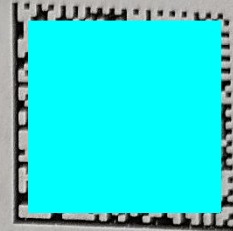
D

8

Street

County Kildare, R14 2

08 9

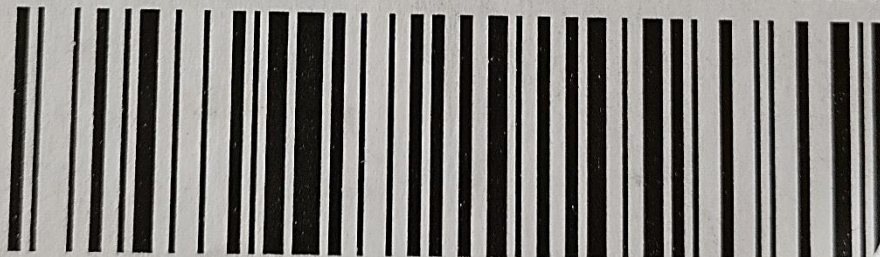


From:

Ink Maestro Ltd

Item 1 of 1

Print date: 02/02/2022



1

3C1000242157

Looking for an easy way to send or return an item? Visit [parcelconnect](#)



parcelconnect

FASTWAY COURIERS

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/293698726>

Seven Basic Principles of Logical Reasoning

Article in *American laboratory* · August 2008

CITATIONS

0

READS

9,001

1 author:



Daniel Schneck

Virginia Polytechnic Institute and State University

123 PUBLICATIONS 544 CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:



Physiologic Responses to the elements of music; music therapy; Brain function [View project](#)

Seven Basic Principles of Logical Reasoning



Dr. Schneck is W.S. White Distinguished Professor Emeritus of Engineering Science and Mechanics, Virginia Tech, P.O. Box 396, Christiansburg, VA 24068-0396, U.S.A.; tel.: 540-382-6496; e-mail: adanielj@vt.edu.

As an "expert" consultant, I am often asked to evaluate the validity of the reasoning used by litigants to justify their claims. In many cases, I find such reasoning to be based on arbitrary axioms (unsubstantiated assumptions taken to be true without proof) and non sequiturs (conclusions that do not follow directly and logically from the arguments that led up to them). In the latter case, to be valid, arguments must be based on the following types of logical reasoning:

1. *Modus Ponens*: From the Latin *pōnere*, meaning "to put," and *modus*, meaning "mode," a method of reasoning based on proposing. In *modus ponens*, a hypothetical proposition—*whether valid or invalid* (the subject of another editorial)—is offered ("set down") first. For example, one might propose an antecedent (literally "go before," hence, by inference, *cause*) of the form: "If A. . ." Next, as a result of "A" having occurred, an effect, or consequent, is presumed to follow, stated as: ". . . then B." Finally, if the antecedent is affirmed, then so is the consequent, i.e., "If A, then B. . . but A is true. . . therefore B is true."

Note: To say "If A, then B" merely asserts that A is a *sufficient* condition for B to occur, but not *inescapably necessary*. For example, it is easy to affirm that, "If your skull is hit hard enough with a hammer (antecedent, A). . . then it will be exposed to a force *sufficient* to crack it open (consequent, B)." However, it does not necessarily follow that, "If your skull was exposed to a force sufficient to crack it open (i.e., 'if B'). . . then it was hit hard enough with a hammer ('then A')"! In other words, the converse—"If B, then A"—of the proposition "If A, then B" is not necessarily true, because in this case the sufficient force might have resulted not from the blow of a hammer, but from a serious automobile accident, or taking a hard fall down a flight of stairs, or many other confounding variables. The only thing you can say is, "If B, then *perhaps* as a result of A, but not *necessarily*." To conclude otherwise, when an inverse, commutative relationship between A and B has not been proven, is called an illogical Fallacy of Affirming the Consequent.

Moreover, it is equally invalid to assume that if your skull was *not* hit hard enough with a hammer (the negation of A), then it was *not* exposed to a force sufficient to crack it open, because, again, that force might have originated from a variety of different sources. The latter is called an illogical Fallacy of Denying the Antecedent, emphasizing again that the antecedent might be sufficient for causing the consequent, but not necessary.

The two fallacies above result from "A" requiring the use of a hammer to supply the blow to the skull. Thus, given the reasonable assumption that the skull needs to be hit hard enough in order for it to crack, one might propose a more general argument that eliminates identifying the source of the blow: "If your skull gets hit *hard enough*, then it will crack open." Getting hit hard enough now becomes necessary *and* sufficient for cracking open (as opposed to sawing or drilling) the skull, because now, "If A, then B" and its converse, "If B, then A," are *both* true. That is, if your skull has cracked open, it is reasonable to presume that it was hit hard enough to do

so, or, stated in negation form, if your skull is *not* hit hard enough, it is likely that it will not otherwise crack open. To prove the concept of "necessary and sufficient conditions for causation," one must prove that a statement *and its converse* are both universally valid.

To say "If A, then B" merely asserts that A is a sufficient condition for B to occur, but not inescapably necessary.

2. The reasoning offered in the next-to-last sentence above goes by the name *modus tollens* (from the Latin for "removing"). It is a

mode ("modus") of reasoning wherein, if the *consequent* is denied (removed, "tollens")—your skull is *not* cracked open—then so is the *antecedent*—the skull was *not* hit hard enough to do so. In other words, "If A (skull gets hit *hard enough*), then B (skull fractures)". . . but. . . "Skull is *not* fractured (B is false). . . thus. . . skull was *not* hit *hard enough* (A is false)."

3. Now consider the case of two *modus ponens* arguments forming a conjunction, i.e., coupled by the word "and": "If your skull is struck hard enough (A), then it will crack open (B)"; AND "If the potential blow misses your head completely (C), then you will escape unharmed (D)." This is called a *Constructive Dilemma* mode of reasoning, wherein we have: "If A, then B; AND If C, then D." Thus, "If A OR C, then B OR D," i.e., either your skull is struck hard enough (A), in which case it cracks open (B). . . OR. . . the blow misses your head completely (C), in which case you escape unharmed (D).
4. By the same token, we can have a *Destructive Dilemma*, involving a conjunction between two *modus tollens* arguments: "If A, then B; AND If C, then D," so, if B *didn't*

happen OR D *didn't* happen, then either A *didn't* happen OR C *didn't* happen—thus, if your skull did *not* crack open (the negation of B), in which case your skull was *not* struck hard enough (the negation of A), OR you did *not* escape unharmed (the negation of D), in which case the blow did *not* miss your skull (the negation of C).

5. *Hypothetical Syllogism*: A syllogism (from the Greek prefix *syn-*, meaning “together,” and *lógos*, meaning “a reckoning”) is a type of reasoning wherein a major premise is coupled with a minor premise to deduce a conclusion drawn necessarily from the two of them. If *both* premises are explicit, and not constrained by qualifying conditions, the syllogism is called *categorical*, the classic example being: “All men are mortal (major premise); Socrates is a man (minor premise); Therefore, Socrates is mortal (conclusion).”

If at least one of the premises is conditional (i.e., constrained by an “If . . .” statement), the syllogism is called *hypothetical*. Thus, in the situation being considered herein, one might offer the major premise: “If your skull is struck *hard enough* (antecedent, A, containing two constraints: *if* your skull is *struck*, and *if* it is struck *hard enough*), then it will crack (consequent, B)””; and the minor premise: “If your skull cracks (B), then you might die (C)””; from which two statements one may logically conclude that, “If your skull gets struck hard enough (A), *then* you might die (C).” Note that the hypothetical syllogism is of the form: “If A, then B; If B, then C; Therefore, If A, then C.” This is quite different from saying: “If A (e.g., ‘If an object is human’), then

B (‘It is an animal’); and “If A (‘If an object is human’), then C (‘It is bipedal’);” Therefore, “If B (‘If an object is an animal’), then C (‘It is bipedal’),” which is clearly not the case! Nor, using converses, is it generally true that: “If B, then A (not all animals are human!), and If C, then A (not all bipedal animals are human!); Therefore, If B, then C (not all animals are bipedal!).” Yet another type of syllogism is the:

6. *Disjunctive Syllogism*: Here, at least one of the premises contains a *disjunctive preposition*, such as “or” (as opposed to the hypothetical “if”). For example, one might say, “The blow to your skull was either on target (A), *or* missed your head completely (B)” (major premise). Followed by: “But the blow did *not* miss your head completely” (minor premise, in the form of the negation of B). Thus, we conclude that, “Therefore, the blow to your skull was on target” (A). This syllogism is of the form: “*Either* A, *or* B; But *not* B, Therefore, A.” Note: In many “and/or” situations where it is possible for *both* A and B to be true simultaneously, a seemingly analogous argument of the form: “A *and/or* B. . . But B exists, so A doesn’t” is not valid, even though attempts are often made to use it!
7. *Proof by Contradiction*: Finally, a type of *modus tollens* argument called proof by contradiction or *reductio ad absurdum* (Latin “reduction to absurdity”) is a method of proving something false by showing that conclusions to which it leads are absurd, or in violation of something known to be true. So, having said that, here is a question: Are you, or are you *not* a Cretan if you say, “I am a Cretan,” given that “All Cretans are liars”?

APPENDIX MISLEADING

 Cambridge Dictionary

DictionaryTranslateGrammarThesaurusCambridge Dictionary +Plus

misleading

English

Q

GrammarEng

←

Ads by Google

Stop seeing this ad

Why this ad? ▶

misleading

adjective

UK  /ˌmɪsˈliː.dɪŋ/ US  /ˌmɪsˈliː.dɪŋ/

B2

causing someone to believe something that is not true:

- *misleading information/statements*