		Basic Definitions of the Forms of Causation	
1	complete causation by X of Y	symbol: m	comparison
a)	If X, then Y	(X + notY) is impossible	
b)	if notX, not-then Y	(notX + notY) is possible	<=> 2(c)
c)	X is possible	(X + Y) is possible	<=> 2(b)
2	necessary causation by X of Y	symbol: n	
a)	If notX, then notY	(notX + Y) is impossible	
b)	if X, not-then notY	(X + Y) is possible	<=> 1(c)
c)	notX is possible	(notX + notY) is possible	<=> 1(b)
3	partial causation by X (with Z) of Y	symbol: p rel to Z	=> not-1
a)	If (X + Z), then Y	(X + Z + notY) is impossible	<= 1(a)
b)	if (notX + Z), not-then Y	(notX + Z + notY) is possible	=> 1(b)
c)	if (X + notZ), not-then Y	(X + notZ + notY) is possible	=> not-1(a)
d)	(X + Z) is possible	(X + Z + Y) is possible	=> 1(c)
4	contingent causation by X (with Z) of Y	symbol: q rel to Z	=> not-2
a)	If (notX + notZ), then notY	(notX + notZ + Y) is impossible	<= 2(a)
b)	if (X + notZ), not-then notY	(X + notZ + Y) is possible	=> 2(b)
c)	if (notX + Z), not-then notY	(notX + Z + Y) is possible	=> not-2(a)
d)	(notX + notZ) is possible	(notX + notZ + notY) is possible	=> 2(c)
5	partial causation by X of Y (absolute)	symbol: p abs	<= 3, => not
a)	If X, not-then Y	(X + notY) is possible	<=> not-1(a)
b)	if notX, not-then Y	(notX + notY) is possible	<=> 1(b), 6(e
c)	if X, not-then notY	(X + Y) is possible	<=> 1(c), 6(l
6	contingent causation by X of Y (absolute)	symbol: q abs	<= 4, => not
a)	If notX, not-then notY	(notX + Y) is possible	<=> not-2(a
b)	if X, not-then notY	(X + Y) is possible	<=> 2(b), 5(e)
c)	if notX, not-then Y	(notX + notY) is possible	<=> 2(c), 5(t

Note that ALL the clauses of a definition must be applicable before the corresponding determination of causation can be claimed. It is not enough if only one or two of them are true. Note also : the numbering system above used is not to be confused with the one used in the following pages. Its purpose here is just to allow us to interrelate the building blocks of the various forms (as indicated on the right).

#	symbol	Compound and Elementary Forms of Causation text
	•	CAUSATIVE FORMS (XY)
1	mn	X is a complete and necessary cause of Y
2a	mg abs	X is a complete and contingent cause of Y
2b	mg rel to Z	X is a complete and (complemented by Z) contingent cause of Y
2c	mg rel to notZ	X is a complete and (complemented by 12) contingent cause of Y
Ba	np abs	X is a necessary and partial cause of Y
3b	np rel to Z	X is a necessary and (complemented by Z) partial cause of Y
3c	np rel to notZ	X is a necessary and (complemented by notZ) partial cause of Y
4a	pq abs	X is a partial and contingent cause of Y
1b	pq rel to Z	X (complemented by Z) is a partial and contingent cause of Y
4c	pq rel to notZ	X (complemented by notZ) is a partial and contingent cause of Y
5	m	X is a complete cause of Y
6	n	X is a necessary cause of Y
7a	p abs	X is a partial cause of Y
7b	p rel to Z	X (complemented by Z) is a partial cause of Y
7c	p rel to notZ	X (complemented by notZ) is a partial cause of Y
a Ba		X is a contingent cause of Y
	q abs	
Bb	q rel to Z	X (complemented by Z) is a contingent cause of Y
Bc	q rel to notZ	X (complemented by notZ) is a contingent cause of Y
		PREVENTIVE FORMS (XnotY)
1	mn	X is a complete and necessary cause of notY
2a	mq abs	X is a complete and contingent cause of notY
2b	mg rel to Z	X is a complete and (complemented by Z) contingent cause of notY
2c	mg rel to notZ	X is a complete and (complemented by notZ) contingent cause of notY
zc Ba	np abs	X is a necessary and partial cause of notY
3b	np rel to Z	X is a necessary and (complemented by Z) partial cause of notY
3c	np rel to notZ	X is a necessary and (complemented by notZ) partial cause of notY
la	pq abs	X is a partial and contingent cause of notY
1b	pq rel to Z	X (complemented by Z) is a partial and contingent cause of notY
1c	pq rel to notZ	X (complemented by notZ) is a partial and contingent cause of notY
5	m	X is a complete cause of notY
6	n	X is a necessary cause of notY
7a	p abs	X is a partial cause of notY
7b	p rel to Z	X (complemented by Z) is a partial cause of notY
7c	p rel to notZ	X (complemented by notZ) is a partial cause of notY
Ba	q abs	X is a contingent cause of notY
3b	q rel to Z	X (complemented by Z) is a contingent cause of notY
8c	q rel to notZ	X (complemented by notZ) is a contingent cause of notY
		INVERSE CAUSATIVE FORMS (notXnotY)
1	mn	notX is a complete and necessary cause of notY
2a	mq abs	notX is a complete and contingent cause of notY
2b	mg rel to Z	notX is a complete and (complemented by Z) contingent cause of notY
	mq rel to Z mg rel to notZ	notX is a complete and (complemented by Z) contingent cause of notY notX is a complete and (complemented by notZ) contingent cause of notY
2c	mq rel to notZ	notX is a complete and (complemented by notZ) contingent cause of notY
2c 3a	mq rel to notZ np abs	notX is a complete and (complemented by notZ) contingent cause of notY notX is a necessary and partial cause of notY
2c 3a 3b	mq rel to notZ np abs np rel to Z	notX is a complete and (complemented by notZ) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by Z) partial cause of notY
2c 3a 3b 3c	mq rel to notZ np abs np rel to Z np rel to notZ	notX is a complete and (complemented by notZ) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by Z) partial cause of notY notX is a necessary and (complemented by notZ) partial cause of notY
2c 3a 3b 3c 4a	mq rel to notZ np abs np rel to Z np rel to notZ pq abs	notX is a complete and (complemented by notZ) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by Z) partial cause of notY notX is a necessary and (complemented by notZ) partial cause of notY notX is a partial and contingent cause of notY
2c 3a 3b 3c	mq rel to notZ np abs np rel to Z np rel to notZ pq abs pq rel to Z	notX is a complete and (complemented by not2) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by 2) partial cause of notY notX is a necessary and (complemented by not2) partial cause of notY notX is a partial and contingent cause of notY notX (complemented by 2) is a partial and contingent cause of notY
2c 3a 3b 3c 4a	mq rel to notZ np abs np rel to Z np rel to notZ pq abs	notX is a complete and (complemented by notZ) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by Z) partial cause of notY notX is a necessary and (complemented by notZ) partial cause of notY notX is a partial and contingent cause of notY
2c 3a 3b 3c 4a 4b	mq rel to notZ np abs np rel to Z np rel to notZ pq abs pq rel to Z	notX is a complete and (complemented by not2) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by 2) partial cause of notY notX is a necessary and (complemented by not2) partial cause of notY notX is a partial and contingent cause of notY notX (complemented by 2) is a partial and contingent cause of notY
2c 3a 3b 3c 4a 4b 4c	mg rel to notZ np abs np rel to Z np rel to notZ pg abs pg rel to Z pg rel to notZ	notX is a complete and (complemented by not2) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by 2) partial cause of notY notX is a necessary and (complemented by not2) partial cause of notY notX is a partial and contingent cause of notY notX (complemented by 2) is a partial and contingent cause of notY notX (complemented by not2) is a partial and contingent cause of notY
2c 3a 3b 3c 4a 4b 4c 5 6	mq rel to notZ np abs np rel to Z np rel to notZ pq abs pq rel to Z qq rel to notZ m	notX is a complete and (complemented by not2) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by 2) partial cause of notY notX is a necessary and (complemented by not2) partial cause of notY notX is a partial and contingent cause of notY notX (complemented by 2) is a partial and contingent cause of notY notX (complemented by not2) is a partial and contingent cause of notY notX (complemented by not2) is a partial and contingent cause of notY notX is a complete cause of notY notX is a necessary cause of notY
2c 3a 3b 3c 4a 4b 4c 5 6 7a	mq rel to notZ np abs np rel to Z np rel to notZ pq abs pq rel to Z pq rel to Z pq rel to notZ m n p abs	notX is a complete and (complemented by not2) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by 2) partial cause of notY notX is a partial and contingent cause of notY notX (complemented by 2) is a partial and contingent cause of notY notX (complemented by 2) is a partial and contingent cause of notY notX (complemented by 1) is a partial and contingent cause of notY notX is a complete cause of notY notX is a complete cause of notY notX is a complete cause of notY notX is a partial cause of notY
2c 3a 3b 3c 4a 4b 4c 5 6 7a	mq rel to notZ np abs np rel to Z np rel to notZ pq abs pq rel to Z pq rel to Z pq rel to notZ m n p abs p rel to Z	notX is a complete and (complemented by not2) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by 2) partial cause of notY notX is a necessary and (complemented by not2) partial cause of notY notX is a partial and contingent cause of notY notX (complemented by z) is a partial and contingent cause of notY notX (complemented by not2) is a partial and contingent cause of notY notX is a complete cause of notY notX is a complete cause of notY notX is a necessary cause of notY notX is a partial cause of notY notX is a partial cause of notY
2c 3a 3b 3c 4a 4b 4c 5 6 7a 7b 7c	mq rel to notZ np abs np rel to Z np rel to Z pq abs pq rel to Z pq rel to notZ m n p abs p rel to Z p rel to Z p rel to notZ	notX is a complete and (complemented by not2) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by 2) partial cause of notY notX is a necessary and (complemented by not2) partial cause of notY notX is a partial and contingent cause of notY notX (complemented by 2) is a partial and contingent cause of notY notX (complemented by not2) is a partial and contingent cause of notY notX (complemented by not2) is a partial and contingent cause of notY notX is a complete cause of notY notX is a necessary cause of notY notX is a necessary cause of notY notX is a necessary cause of notY notX (complemented by 2) is a partial cause of notY notX (complemented by not2) is a partial cause of notY
2c 3a 3b 3c 4a 4b 4c 5 6 7a 7c 3a	mg rel to notZ np abs np rel to Z np rel to notZ pg abs pg rel to notZ m n p abs p rel to Z p rel to Z p rel to notZ q abs	notX is a complete and (complemented by not2) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by 2) partial cause of notY notX is a partial and contingent cause of notY notX (complemented by 2) is a partial and contingent cause of notY notX (complemented by 2) is a partial and contingent cause of notY notX (complemented by 10, is a partial and contingent cause of notY notX is a complete cause of notY notX is a complete cause of notY notX is a partial cause of notY notX is a partial cause of notY notX (complemented by 2) is a partial cause of notY notX (complemented by 1) is a partial cause of notY notX (complemented by not2) is a partial cause of notY notX is a contingent cause of notY
2c 3a 3b 3c 4b 4c 5 6 7a 7b 7c 3a	mq rel to notZ np abs np rel to Z np rel to Z pq abs pq rel to Z pq rel to Z pq rel to Z p abs p rel to Z p rel to Z q abs q rel to Z	notX is a complete and (complemented by not2) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by 2) partial cause of notY notX is a partial and contingent cause of notY notX is a partial and contingent cause of notY notX (complemented by 2) is a partial and contingent cause of notY notX (complemented by not2) is a partial and contingent cause of notY notX is a complete cause of notY notX is a necessary cause of notY notX is a necessary cause of notY notX is a partial cause of notY notX is a partial cause of notY notX (complemented by 2) is a partial cause of notY notX (complemented by 2) is a partial cause of notY notX (complemented by notZ) is a partial cause of notY notX (complemented by notZ) is a partial cause of notY notX (complemented by notZ) is a partial cause of notY notX (complemented by notZ) is a contingent cause of notY
2c 3a 3b 3c 4b 4c 5 6 7a 7b 7c 3a	mg rel to notZ np abs np rel to Z np rel to notZ pg abs pg rel to notZ m n p abs p rel to Z p rel to Z p rel to notZ q abs	notX is a complete and (complemented by not2) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by 2) partial cause of notY notX is a necessary and (complemented by not2) partial cause of notY notX is a partial and contingent cause of notY notX (complemented by 2) is a partial and contingent cause of notY notX (complemented by not2) is a partial and contingent cause of notY notX is a complete cause of notY notX is a complete cause of notY notX is a necessary cause of notY notX (complemented by not2) is a partial cause of notY notX (complemented by not2) is a partial cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY
2c 3a 3b 3c 4b 4c 5 6 7a 7b 7c 3a	mg rel to notZ np abs np rel to Z np rel to notZ pg abs pg rel to notZ m n p abs p rel to notZ p rel to Z p rel to notZ q abs q rel to Z q rel to Z	notX is a complete and (complemented by not2) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by 2) partial cause of notY notX is a partial and contingent cause of notY notX is a partial and contingent cause of notY notX (complemented by 2) is a partial and contingent cause of notY notX (complemented by not2) is a partial and contingent cause of notY notX is a complete cause of notY notX is a necessary cause of notY notX is a necessary cause of notY notX is a partial cause of notY notX is a partial cause of notY notX (complemented by 2) is a partial cause of notY notX (complemented by 2) is a partial cause of notY notX (complemented by notZ) is a partial cause of notY notX (complemented by notZ) is a partial cause of notY notX (complemented by notZ) is a partial cause of notY notX (complemented by notZ) is a contingent cause of notY
2c 33a 38b 36c 4a 46c 5 5 6 77b 77c 33a 38b 33c	mq rel to notZ np abs np rel to Z np rel to Z pq abs pq rel to Z pq rel to Z pq rel to Z p abs p rel to Z p rel to Z q abs q rel to Z	notX is a complete and (complemented by not2) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by 2) partial cause of notY notX is a necessary and (complemented by not2) partial cause of notY notX is a partial and contingent cause of notY notX (complemented by 2) is a partial and contingent cause of notY notX (complemented by not2) is a partial and contingent cause of notY notX is a complete cause of notY notX is a complete cause of notY notX is a necessary cause of notY notX (complemented by not2) is a partial cause of notY notX (complemented by not2) is a partial cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY
2c 33a 38b 36c 44a 44c 55 66 77a 77b 77c 33a 38b 38c 1	mq rel to notZ np abs np rel to Z np rel to aZ pq abs pq rel to aZ pq rel to Z pq rel to aZ p rel to Z p rel to Z q rel to notZ q rel to Z q rel to notZ	notX is a complete and (complemented by not2) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by 2) partial cause of notY notX is a necessary and (complemented by not2) partial cause of notY notX is a partial and contingent cause of notY notX (complemented by 2) is a partial and contingent cause of notY notX (complemented by not2) is a partial and contingent cause of notY notX is a complete cause of notY notX is a necessary cause of notY notX (complemented by not2) is a partial cause of notY notX (complemented by not2) is a partial cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX is a complete and necessary cause of Y
2c 33a 3b 3c 4a 4b 4c 5 5 6 72 7b 7c 33a 3b 3c 1 1 2a	mq rel to notZ np abs np rel to Z np rel to notZ pq abs pq rel to notZ pq rel to notZ m n p abs p rel to notZ q abs q rel to z q rel to z q rel to notZ q rel to notZ m mq abs	notX is a complete and (complemented by not2) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by 2) partial cause of notY notX is a necessary and (complemented by not2) partial cause of notY notX is a partial and contingent cause of notY notX (complemented by 2) is a partial and contingent cause of notY notX (complemented by not2) is a partial and contingent cause of notY notX is a complete cause of notY notX is a complete cause of notY notX is a necessary cause of notY notX (complemented by not2) is a partial cause of notY notX (complemented by not2) is a partial cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX (is a necessary cause of notY notX (is a complete and necessary cause of Y notX is a complete and contingent cause of Y
2c 33a 3b 3c 4a 4b 4c 5 6 77b 77c 33a 3b 53c 1 1 2a 2b	mq rel to notZ np rel to Z np rel to notZ pq rel to notZ pq rel to notZ m n p abs p rel to notZ m n p abs p rel to notZ q abs q rel to Z q rel to notZ mn mq abs mq tel to Z	notX is a complete and (complemented by not2) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by 2) partial cause of notY notX is a necessary and (complemented by not2) partial cause of notY notX is a netial and contingent cause of notY notX (complemented by 2) is a partial and contingent cause of notY notX (complemented by not2) is a partial and contingent cause of notY notX is a complete cause of notY notX is a complete cause of notY notX is a nomplete cause of notY notX is a nomplete cause of notY notX is a partial cause of notY notX (complemented by not2) is a partial cause of notY notX (complemented by not2) is a partial cause of notY notX (complemented by not2) is a partial cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX is a complete and necessary cause of Y notX is a complete and contingent cause of Y notX is a complete and (complemented by 2) is contingent cause of Y notX is a complete and (complemented by 2) contingent cause of Y
22c 33a 33b 33b 34a 44c 55 67a 77b 77c 33a 33b 33c 11 22a 22b 22c	mq rel to notZ np abs np rel to Z np rel to T pq rel to notZ pq abs pq rel to Z pq rel to Z p abs p rel to notZ q abs q rel to notZ q rel to notZ m m mq rel to Z mq rel to Z mq rel to Z mq rel to Z mq rel to Z	notX is a complete and (complemented by not2) contingent cause of notY notX is a necessary and partial cause of notY notX is a necessary and (complemented by 2) partial cause of notY notX is a necessary and (complemented by not2) partial cause of notY notX is a partial and contingent cause of notY notX (complemented by 2) is a partial and contingent cause of notY notX (complemented by not2) is a partial and contingent cause of notY notX (complemented by not2) is a partial and contingent cause of notY notX is a complete cause of notY notX is a complete cause of notY notX is a necessary cause of notY notX is a necessary cause of notY notX (complemented by 2) is a partial cause of notY notX (complemented by not2) is a partial cause of notY notX (complemented by 2) is a partial cause of notY notX (complemented by not2) is a contingent cause of notY notX (complemented by not2) is a contingent cause of notY notX is a complete and notX (complemented by 2) is a contingent cause of notY notX is a complete and necessary cause of Y notX is a complete and necessary cause of Y notX is a complete and (complemented by 2) contingent cause of Y notX is a complete and (complemented by 2) contingent cause of Y notX is a complete and (complemented by 2) contingent cause of Y
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	m	X is a complete cause of Y
NIES ((is contrary to)	
8a	<u>causatives:</u> g abs	X is a contingent cause of Y
8b	q rel to Z	X (complemented by Z) is a contingent cause of Y
8c	q rel to notZ	X (complemented by notZ) is a contingent cause of Y
	preventives:	
5	m	X is a complete cause of notY
6 7a	n p abs	X is a necessary cause of notY X is a partial cause of notY
7b	p rel to Z	X (complemented by Z) is a partial cause of notY
7c	p rel to notZ	X (complemented by notZ) is a partial cause of notY
8a	q abs	X is a contingent cause of notY
8b	q rel to Z	X (complemented by Z) is a contingent cause of notY
8c	q rel to notZ	X (complemented by notZ) is a contingent cause of notY
ITHER	IMPLIES NORE DENIES	
5	<u>causatives:</u> m	X is a complete cause of Y
6	n	X is a necessary cause of Y
7a	p abs	X is a partial cause of Y
7b	p rel to Z	X (complemented by Z) is a partial cause of Y
7c	p rel to notZ	X (complemented by notZ) is a partial cause of Y
6	n (is control to)	X is a necessary cause of Y
VIES ((is contrary to) causatives:	
7a	p abs	X is a partial cause of Y
7b	p rel to Z	X (complemented by Z) is a partial cause of Y
7c	p rel to notZ	X (complemented by notZ) is a partial cause of Y
	preventives:	
5	m	X is a complete cause of notY
6	n	X is a necessary cause of notY
7a 7h	p abs	X is a partial cause of notY
7b 7c	p rel to Z p rel to notZ	X (complemented by Z) is a partial cause of notY X (complemented by notZ) is a partial cause of notY
7c 8a	g abs	X (complemented by hotz) is a partial cause of hoty X is a contingent cause of notY
8b	q rel to Z	X (complemented by Z) is a contingent cause of notY
8c	q rel to notZ	X (complemented by notZ) is a contingent cause of notY
ITHER	IMPLIES NORE DENIES	
	causatives:	
5	m	X is a complete cause of Y
6	n a aba	X is a necessary cause of Y
8a 8b	q abs a rel to 7	X is a contingent cause of Y X (complemented by Z) is a contingent cause of Y
80 80	q rel to Z q rel to notZ	X (complemented by 2) is a contingent cause of Y X (complemented by notZ) is a contingent cause of Y
	1.0.00	···(•••••• ••••••)•••••
7b	p rel to Z	X (complemented by Z) is a partial cause of Y
PLIES	(subalternates)	
7a	<u>causatives:</u> p abs	X is a partial cause of Y
	(is contrary to)	X is a partial cause of T
	causatives:	
5	m	X is a complete cause of Y
	p rel to notZ	X (complemented by notZ) is a partial cause of Y
7c		
	preventives:	
5	m	X is a complete cause of notY
5 7b	m p rel to Z	X (complemented by Z) is a partial cause of notY
5 7b 8c	m p rel to Z q rel to notZ	
5 7b 8c	m p rel to Z q rel to notZ IMPLIES NORE DENIES	X (complemented by Z) is a partial cause of notY
5 7b 8c	m p rel to Z q rel to notZ	X (complemented by Z) is a partial cause of notY
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5 7b 8c THER 6 8a 8b 8c 7a 7c 8a 8b	m p rel to Z q rel to notZ IMPLIES NORE DENIES <u>causatives:</u> n q abs q rel to Z q rel to notZ <u>preventives:</u> n p abs p rel to notZ q rel to notZ q rel to z q rel to z q rel to z q rel to z q rel to z	X (complemented by Z) is a partial cause of notY X (complemented by notZ) is a contingent cause of notY X is a necessary cause of Y X is a contingent cause of Y X (complemented by Z) is a contingent cause of Y X (complemented by notZ) is a contingent cause of Y X is a necessary cause of notY X is a partial cause of notY X (complemented by notZ) is a partial cause of notY X is a contingent cause of notY X is a contingent cause of notY X (complemented by notZ) is a contingent cause of notY X (complemented by notZ) is a contingent cause of notY X (complemented by Z) is a contingent cause of notY
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		INVERSIONS (XY to notXnotY)
5	m	X is a complete cause of Y
6	n	X is a necessary cause of Y
- 7a	p abs	X is a partial cause of Y
7b	p rel to Z	X (complemented by Z) is a partial cause of Y
7c	p rel to notZ	X (complemented by notZ) is a partial cause of Y
8a	q abs	X is a contingent cause of Y
8b	g rel to Z	X (complemented by Z) is a contingent cause of Y
80	q rel to notZ	X (complemented by notZ) is a contingent cause of Y
E RESP	ECTIVELY EQUIVALENT TO:	······································
6	n	notX is a necessary cause of notY
5	m	notX is a complete cause of notY
8a	g abs	notX is a contingent cause of notY
8c	q rel to notZ	notX (complemented by notZ) is a contingent cause of notY
8b	q rel to Z	notX (complemented by Z) is a contingent cause of notY
7a	p abs	notX is a partial cause of notY
7c	p rel to notZ	notX (complemented by notZ) is a partial cause of notY
7b	p rel to Z	notX (complemented by not2) is a partial cause of notY
70	piertoz	hotx (complemented by 2) is a partial cause of noti
		CONVERSIONS (XY to YX)
5	m	X is a complete cause of Y
6	n	X is a necessary cause of Y
7a	p abs	X is a partial cause of Y
7b	p rel to Z	X (complemented by Z) is a partial cause of Y
7c	p rel to notZ	X (complemented by notZ) is a partial cause of Y
8a	g abs	X is a contingent cause of Y
8b	g rel to Z	X (complemented by Z) is a contingent cause of Y
8c	g rel to notZ	X (complemented by notZ) is a contingent cause of Y
RE RESP	ECTIVELY EQUIVALENT TO:	(,,,,,,
6	n	Y is a necessary cause of X
5	m	Y is a complete cause of X
8a	g abs	Y is a contingent cause of X
8c	q rel to notZ	Y (complemented by notZ) is a contingent cause of X
8b	q rel to Z	Y (complemented by Z) is a contingent cause of X
7a	p abs	Y is a partial cause of X
7c	p rel to notZ	Y (complemented by notZ) is a partial cause of X
7b	p rel to Z	Y (complemented by 70/2) is a partial cause of X
		CONTRAPOSITIONS (XY to notYnotX)
5	m	X is a complete cause of Y
6	n	X is a necessary cause of Y
7a	p abs	X is a partial cause of Y
7b	p rel to Z	X (complemented by Z) is a partial cause of Y
7c	p rel to notZ	X (complemented by notZ) is a partial cause of Y
8a	q abs	X is a contingent cause of Y
8b	q rel to Z	X (complemented by Z) is a contingent cause of Y
8c	q rel to notZ	X (complemented by notZ) is a contingent cause of Y
RE RESP	ECTIVELY EQUIVALENT TO:	
5	m	notY is a complete cause of notX
6	n	notY is a necessary cause of notX
7a	p abs	notY is a partial cause of notX
7b	p rel to Z	notY (complemented by Z) is a partial cause of notX
7c	p rel to notZ	notY (complemented by notZ) is a partial cause of notX
8a	, q abs	notY is a contingent cause of notX
8b	g rel to Z	notY (complemented by Z) is a contingent cause of notX
8c	q rel to notZ	notY (complemented by notZ) is a contingent cause of notX
Concer	ning OBVERSION (XX to Xnot	Y), OBVERTED INVERSION (XY to notXY) and OBVERTED CONVERSION (XY to YnotX), it
		ives and preventives that these can only yield negatives.