

VOTING

In this part of the survey you will look at different scientific claims and their formalizations. There are 25 scientific claims in total. These scientific claims might look familiar to you, as you had to fill them in in a different part of the formalization study. Here, multiple formalizations are given for the same scientific claim. Pay attention to the instantiation of the formalizations and give a rating to each of these formalizations. In case you have any comments, please write them at the end of the sheet, in the special box.

Interpretation help: "Every thing of type [SUBJECT] that is in the context of a thing of type [CONTEXT] [QUALIFIER] has a relation of type [RELATION] to a thing of type [OBJECT] that is in the same context."

CLAIM 1

Elite news sources frame Taiwan's housing policy with pro market rhetoric.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	elite news source	elite news sources	NONE	Taiwan housing policy
SUBJECT:	coverage of Taiwan's housing policy	pro market rhetoric	elite news sources	elite news sources and pro market rhetoric
QUALIFIER:	generally [1]	generally [2]	frequently [3]	can generally [4]
RELATION:	includes [5]	affects [6]	causes [7]	prevents [8]
OBJECT:	pro market rhetoric	Taiwan's housing policy	framing of Taiwan's housing policy with pro market rhetoric	exposing unjust housing policy

Choose the best formalization(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Select those with clear formalization mistakes :	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CLAIM 2

Counterterrorism laws have negative effects on democracy.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	NONE	NONE	counterterrorism	NONE
SUBJECT:	counterterrorism laws	counterterrorism law	laws	counterterrorism laws
QUALIFIER:	frequently not [9]	generally [10]	generally [11]	generally [12]
RELATION:	contributes to [13]	inhibits [14]	decreases [15]	affects [16]
OBJECT:	democracy	democracy	democracy	democracy

Choose the **best**
formalization(s):☐☐☐☐Select those with clear
formalization **mistakes**:☐☐☐☐

CLAIM 3

Spatial working memory skills are positively correlated with training success in the procedures of pilot candidate selection.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	procedures of pilot candidate selection	pilot candidate selection procedures	pilot candidate selection procedure	procedures of pilot candidate selection
SUBJECT:	spatial working memory skills	spatial working memory skills	correlation of spatial working memory skills with training success	training success
QUALIFIER:	generally [17]	generally [18]	generally [19]	generally [20]
RELATION:	contributes to [21]	contributes to [22]	is same as [23]	increases [24]
OBJECT:	training success	training success	positive correlation	spatial working memory skills

Choose the best formalization(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Select those with clear formalization mistakes :	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CLAIM 4

The altering of clock function in the hypothalamo pituitary ovarian axis with chronobiotics can treat common fertility disorders resulting from chronic circadian disruption.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	hypothalamo pituitary ovarian axis with chronobiotics	patients suffering from chronic circadian disruption	chronic circadian disruption and common fertility disorders	common fertility disorder resulting from chronic circadian disruption
SUBJECT:	the altering of clock function	altering of clock function in the hypothalamo pituitary ovarian axis with chronobiotics	chronobiotics	altering of clock function in the hypothalamo pituitary ovarian axis with chronobiotics
QUALIFIER:	can frequently [25]	can frequently [26]	can generally [27]	can generally [28]
RELATION:	decreases [29]	contributes to [30]	contributes to [31]	enables [32]
OBJECT:	common fertility disorders resulting from chronic circadian disruption	treatment of common fertility disorders	altering of clock function in the hypothalamo pituitary ovarian axis	treatment

Choose the **best** formalization(s):

☐
☐
☐
☐

Select those with clear formalization **mistakes**:

☐
☐
☐
☐

CLAIM 5

The Net Expected Regret Difference is equivalent to the concept of net benefits in Decision Curve Analysis.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	Decision Curve Analysis	decision curve analysis	NONE	decision making
SUBJECT:	Net Expected Regret Difference	net expected regret difference	Net Expected Regret Difference	Net Expected Regret Difference
QUALIFIER:	always [33]	always [34]	always [35]	always [36]
RELATION:	has same value as [37]	is same as [38]	has same value as [39]	has same value as [40]
OBJECT:	net benefits	concept of net benefits	net benefits in Decision Curve Analysis	net benefit in Decision Curve Analysis

Choose the best formalization(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Select those with clear formalization mistakes :	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CLAIM 6

A novel cyclophane (L1) consisting of a 1H pyrazole moiety linked through methylene groups to a 1,5,9,13 tetraazadecane chain is capable of CO2 fixation.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	NONE	NONE	cyclophane (L1)	cyclophane L1
SUBJECT:	cyclophane (L1) consisting of a 1H pyrazole moiety linked through methylene groups to a 1,5,9,13 tetraazadecane chain	novel cyclophane (L1) consisting of a 1H pyrazole moiety linked through methylene groups to a 1,5,9,13 tetraazadecane chain	1H pyrazole moiety linked through methylene groups to a 1,5,9,13 tetraazadecane chain	1H pyrazole moiety linked through methylene groups to a 1,5,9,13 tetraazadecane chain
QUALIFIER:	can generally [41]	can generally [42]	can generally [43]	can generally [44]
RELATION:	causes [45]	causes [46]	enables [47]	enables [48]
OBJECT:	CO2 fixation	CO2 fixation	CO2 fixation	CO2 fixation

Choose the **best** formalization(s):

☐
☐
☐
☐

Select those with clear formalization **mistakes**:

☐
☐
☐
☐

CLAIM 7

In depth knowledge of medical and psychiatric nursing and of the criminal justice system is essential for competent advanced practice in forensic nursing.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	forensic nursing	forensic nursing	forensic nursing	person
SUBJECT:	competent advanced practice	advanced knowledge of medical nursing and advanced knowledge of psychiatric nursing and advanced knowledge of criminal justice system	competent advanced practice	competent advanced practice in forensic nursing
QUALIFIER:	generally [49]	generally [50]	generally [51]	generally [52]
RELATION:	requires [53]	contributes to [54]	requires [55]	requires [56]
OBJECT:	in depth knowledge of medical and psychiatric nursing and of the criminal justice system	competent advanced practice	in depth knowledge of medical and psychiatric nursing and of the criminal justice system	in depth knowledge of medical and psychiatric nursing and of the criminal justice system

Choose the **best** formalization(s):

☐
☐
☐
☐

Select those with clear formalization **mistakes**:

☐
☐
☐
☐

CLAIM 8

Environmental suitability explains most of the relative spatial variation of abundance for the nectar feeding bat *Anoura caudifer*.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	Anoura caudifer	nectar feeding bat Anoura caudifer	nectar feeding bat Anoura caudifer	population of nectar feeding bat Anoura caudifer
SUBJECT:	environmental suitability	environmental suitability	environmental suitability	relative spatial variation of abundance
QUALIFIER:	mostly [57]	generally [58]	mostly [59]	mostly [60]
RELATION:	contributes to [61]	enables [62]	co-occurs with [63]	is caused by [64]
OBJECT:	relative spatial variation of abundance	relative spatial variation of abundance	relative spatial variation of abundance	environmental suitability

Choose the best formalization(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Select those with clear formalization mistakes :	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CLAIM 9

Zn–Ti substituted barium ferrite particles have a large temperature coefficient of coercivity.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	NONE	barium ferrite particles	NONE	coercivity
SUBJECT:	Zn–Ti substituted barium ferrite particles	temperature coefficient of coercivity of zn-ti substituted barium ferrite particles	Zn–Ti substituted barium ferrite particles	Zn–Ti substituted barium ferrite particles
QUALIFIER:	generally [65]	always [66]	always [67]	can mostly [68]
RELATION:	includes [69]	has larger value than [70]	increases [71]	contributes to [72]
OBJECT:	large temperature coefficient of coercivity	temperature coefficient of coercivity of barium ferrite particles	a large temperature coefficient of coercivity	temperature coefficient

Choose the **best** formalization(s):

☐
☐
☐
☐

Select those with clear formalization **mistakes**:

☐
☐
☐
☐

CLAIM 10

Risk averse people are more likely to belong to a savings group.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	NONE	person	NONE	NONE
SUBJECT:	likelihood of risk-averse people to belong to a savings group	risk averse people	savings group	risk averse people
QUALIFIER:	generally [73]	generally [74]	generally [75]	can frequently [76]
RELATION:	has larger value than [77]	is included in [78]	includes [79]	is included in [80]
OBJECT:	likelihood of non-risk-averse people to belong to a savings group	savings group	risk averse people	savings group

Choose the best formalization(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Select those with clear formalization mistakes :	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CLAIM 11

The decision of the *Kiobel vs Royal Dutch Petroleum Co.* case in the United States decreased the cost for foreign firms of doing business under regimes with records of human rights violations.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	legal case in the United States	regimes with records of human rights violations	foreign firms in the United States doing business under regimes with records of human rights violations	court cases in the United States
SUBJECT:	the decision of the <i>Kiobel vs Royal Dutch Petroleum Co.</i> case	the decision of the <i>Kiobel vs Royal Dutch Petroleum Co.</i> case in the United States	decision of the <i>Kiobel vs Royal Dutch Petroleum Co.</i> case	decision of <i>Kiobel vs. Royal Dutch Petroleum Co.</i>
QUALIFIER:	mostly [81]	mostly [82]	generally [83]	generally [84]
RELATION:	decreases [85]	decreases [86]	decreases [87]	decreases [88]
OBJECT:	cost of doing business	cost for foreign firms of doing business	cost of doing business under regimes with records of human rights violations	cost for foreign firms of doing business under regimes with records of human rights violations
Choose the best formalization(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Select those with clear formalization mistakes :	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CLAIM 12

Osteoarthritis was present in Early Iron Age farmers of the Toutswe communities in east central Botswana.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	Toutswe communities in east central Botswana	Toutswe community in east central Botswana	NONE	Toutswe communities in east central Botswana
SUBJECT:	osteoarthritis	Early Iron Age farmer	osteoarthritis	osteoarthritis
QUALIFIER:	sometimes [89]	sometimes [90]	can sometimes [91]	generally [92]
RELATION:	is included in [93]	includes [94]	is included in [95]	co-occurs with [96]
OBJECT:	Early Iron Age farmers	osteoarthritis	Early Iron Age farmers of the Toutswe communities in east central Botswana	Early Iron Age farmers

Choose the best formalization(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Select those with clear formalization mistakes :	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CLAIM 13

Social protection policy that keeps the vulnerable from slipping into a poverty trap by providing them with a productive safety net can give potentially large returns for the affected individuals.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	vulnerable people who can slip into a poverty trap	vulnerable individuals	social protection policy that keeps the vulnerable from slipping into a poverty trap	vulnerable person
SUBJECT:	social protection policy	social protection policy that keeps the vulnerable from slipping into a poverty trap by providing them with a productive safety net	safety net	social protection policy that keeps the vulnerable from slipping into a poverty trap by providing them with a productive safety net
QUALIFIER:	can generally [97]	can generally [98]	can generally [99]	can generally [100]
RELATION:	contributes to [101]	enables [102]	increases [103]	causes [104]
OBJECT:	large returns for the affected individuals	potentially large returns for the affected individuals	welfare of vulnerable people	large returns

Choose the best formalization(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Select those with clear formalization mistakes :	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CLAIM 14

The stage of caudal fin formation, initiated by notochord flexion, is a developmental milestone in the early life of engraulis family of fish.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	engraulis family of fish	engraulis family of fish	early life of engraulis family of fish	NONE
SUBJECT:	caudal fin formation	stage of caudal fin formation	stage of caudal fin formation	the stage of caudal fin formation, initiated by notochord flexion
QUALIFIER:	always [105]	always [106]	always [107]	always [108]
RELATION:	is included in [109]	contributes to [110]	is same as [111]	is same as [112]
OBJECT:	developmental milestones	early life development milestone	developmental milestone	developmental milestone in the early life of engraulis family of fish

Choose the best formalization(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Select those with clear formalization mistakes :	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CLAIM 15

A flexible nickel sulfide/carbon aerogel composite electrode with bacterial cellulose-derived carbon aerogel can be prepared by a one-step solvothermal method.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	NONE	NONE	bacterial cellulose-derived carbon aerogel	nickel sulfide carbon aerogel composite electrode
SUBJECT:	one-step solvothermal method to prepare a flexible nickel sulfide/carbon aerogel composite electrode with bacterial cellulose-derived carbon aerogel	one-step solvothermal methods	one-step solvothermal method	bacterial cellulose-derived carbon aerogel
QUALIFIER:	can generally [113]	always [114]	can generally [115]	generally [116]
RELATION:	causes [117]	causes [118]	causes [119]	requires [120]
OBJECT:	flexible nickel sulfide/carbon aerogel composite electrode with bacterial cellulose-derived carbon aerogel	a flexible nickel sulfide/carbon aerogel composite electrode with bacterial cellulose-derived carbon aerogel	a flexible nickel sulfide/carbon aerogel composite electrode	one-step solvothermal method
Choose the best formalization(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Select those with clear formalization mistakes :	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CLAIM 16

Employees' awareness and knowledge of Human Resource policy does not have a direct impact on their change-related outcomes.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	employees	Human Resource policy	employee	NONE
SUBJECT:	awareness and knowledge of Human Resource policy	employee awareness and knowledge	awareness and knowledge of Human Resource policy	employees' awareness and knowledge of Human Resource policy
QUALIFIER:	generally not [121]	generally not [122]	generally not [123]	generally not [124]
RELATION:	inhibits [125]	affects [126]	affects [127]	affects [128]
OBJECT:	change-related outcomes	change-related outcome	change-related outcome	change-related outcomes

Choose the best formalization(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Select those with clear formalization mistakes :	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CLAIM 17

Data Analysis Gene Expression software can perform the automated analysis and visualization tasks of high-throughput real-time quantitative PCR data.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	NONE		high-throughput real-time quantitative PCR data	high-throughput real-time quantitative PCR data
SUBJECT:	Data Analysis Gene Expression software		Data Analysis Gene Expression software	Data Analysis Gene Expression software
QUALIFIER:	can generally [129]	[130]	generally [131]	can generally [132]
RELATION:	contributes to [133]	[134]	causes [135]	enables [136]
OBJECT:	automated analysis and visualization task of high-throughput real-time quantitative PCR data		automated analysis and visualization tasks	automated analysis and visualization task

Choose the best formalization(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Select those with clear formalization mistakes :	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CLAIM 18

Cholera is still a major public health problem in Malawi in 2012.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	problems in Malawi in 2012	SIMPLE STATEMENT: public-health-sector-in-Malawi-in-2012 has-major-problem Cholera	NONE	people in Malawi in 2012
SUBJECT:	cholera		cholera	cholera
QUALIFIER:	always [137]		always [138]	can generally [139]
RELATION:	is same as [140]		decreases [141]	contributes to [142]
OBJECT:	major public health problem		public health in Malawi in 2012	public health problem

Choose the **best**
formalization(s):

☐
☐
☐
☐

Select those with clear
formalization **mistakes**:

☐
☐
☐
☐

CLAIM 19

South Africa's arms producers constitute a combination of intertwined public and private sector entities.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:		South Africa	NONE	NONE
SUBJECT:	SIMPLE STATEMENT: South-Africa's-arms-producers-sector	arms producers	public and private sector entities	arms producer in South Africa
QUALIFIER:	rdf:type sector-with-intertwined-public-and-private-entities	always [143]	always [144]	generally [145]
RELATION:		is included in [146]	is included in [147]	includes [148]
OBJECT:		combination of intertwined public and private sector entities	South Africa's arms producers	intertwined public and private sector entity

Choose the **best** formalization(s):

☐
☐
☐
☐

Select those with clear formalization **mistakes**:

☐
☐
☐
☐

CLAIM 20

The overall quality of patient information on bariatric surgery on the internet is relatively poor.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	patient information on bariatric surgery on the internet	patient information on bariatric surgery on the internet	SIMPLE STATEMENT: patient information on bariatric surgery, hasQualityLevel, poor	patient information on bariatric surgery on the internet
SUBJECT:	overall quality	overall information quality		overall information quality
QUALIFIER:	mostly [149]	generally [150]		generally [151]
RELATION:	has similar value as [152]	is same as [153]		is same as [154]
OBJECT:	relatively poor	relatively poor information quality		poor quality information

Choose the best formalization(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Select those with clear formalization mistakes :	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CLAIM 21

Fans who based their identity on Michael Jackson needed to rearrange their model of personal identity after his death.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	fan who based their identity on Michael Jackson	fans who based their identity on Michael Jackson	fans who based their identity on Michael Jackson	fans who based their identity on Michael Jackson
SUBJECT:	death of Michael Jackson	Michael Jackson's death	Michael Jackson's death	death of Michael Jackson
QUALIFIER:	generally [155]	mostly [156]	generally [157]	generally [158]
RELATION:	causes [159]	causes [160]	affects [161]	enables [162]
OBJECT:	rearrangement of model of personal identity	need to rearrange their model of personal identity	personal identity	rearrangement of model of personal identity

Choose the best formalization(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Select those with clear formalization mistakes :	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CLAIM 22

The stable formation control law for collision avoidance by Mondal et al. is able to ensure the connectivity of the underlying communication graph.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	communication graphs	system	collision avoidance by Mondal et al.	communication graph
SUBJECT:	the stable formation control law for collision avoidance by Mondal et al.	stable formation control law for collision avoidance by Mondal et al.	stable formation control law	the stable formation control law for collision avoidance by Mondal et al.
QUALIFIER:	can always [163]	can generally [164]	can generally [165]	can generally [166]
RELATION:	enables [167]	causes [168]	contributes to [169]	contributes to [170]
OBJECT:	connectivity	connectivity of the communication graph	connectivity of the underlying communication graph	connectivity

Choose the best formalization(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Select those with clear formalization mistakes :	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CLAIM 23

Mobile-agent-oriented Petri nets (MAPN) can be used for modeling and analyzing transaction workflows in mobile-agent-based e-commerce systems.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	mobile agent-based e-commerce system	mobile-agent-based e-commerce system	mobile-agent-based e-commerce systems	mobile-agent-based e-commerce systems
SUBJECT:	mobile agent-oriented Petri net	mobile-agent-oriented Petri nets (MAPN)	MAPN	mobile-agent-oriented Petri nets (MAPN)
QUALIFIER:	can generally [171]	can generally [172]	can generally [173]	can generally [174]
RELATION:	enables [175]	contributes to [176]	enables [177]	affects [178]
OBJECT:	model and analysis of transaction workflow	modeling and analyzing transaction workflows	modeling and analyzing transaction workflows	modeling and analyzing transaction workflows

Choose the best formalization(s):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Select those with clear formalization mistakes :	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CLAIM 24

The approximation called “meta-generalized gradient approximations made very simple” (MGGA-MVS) respects the optimal bound on exchange energies by Perdew et al.

	Formalization 1	Formalization 2 (read comment)	Formalization 3	Formalization 4
CONTEXT:	exchange energies by Perdew et al.	NONE	exchange energy by Perdew et al.	NONE
SUBJECT:	the approximation called “meta-generalized gradient approximations made very simple” (MGGA-MVS)	outcome of MGGA-MVS	MGGA-MVS Approximation	approximation called “meta-generalized gradient approximations made very simple” (MGGA-MVS)
QUALIFIER:	generally [179]	always [180]	generally [181]	always [182]
RELATION:	causes [183]	has larger value than [184]	is included in [185]	is same as [186]
OBJECT:	respects the optimal bound	optimal bound on exchange energies by Perdew et al.	optimal bound	approximation respecting the optimal bound on exchange energies by Perdew et al.

Choose the **best** formalization(s):

☐
☐
☐
☐

Select those with clear formalization **mistakes**:

☐
☐
☐
☐

CLAIM 25

Garlic can serve as a phytotherapeutic agent for protection against trichomoniasis in pigeons.

	Formalization 1	Formalization 2	Formalization 3	Formalization 4
CONTEXT:	protection against trichomoniasis in pigeons	pigeon	pidgeon	phytotherapeutic agent
SUBJECT:	garlic	garlic	garlic	garlic
QUALIFIER:	generally [187]	can generally [188]	can generally [189]	generally [190]
RELATION:	is same as [191]	is same as [192]	contributes to [193]	prevents [194]
OBJECT:	phytotherapeutic agent	phytotherapeutic agent protecting against trichomoniasis	protection against trichomoniasis	trichomoniasis in pigeons

Choose the best formalization(s):	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		
Select those with clear formalization mistakes :	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		
Comments:	(optional)								

- [1] "in at least 90% of cases"
- [2] "in at least 90% of cases"
- [3] "in at least 10% of cases"
- [4] "can in at least 90% of cases"
- [5] "[subj] spatio-temporally includes [obj]"
- [6] "[subj] affects the activity of [obj] in the sense of positively or negatively affecting its intensity or frequency"
- [7] "[subj] causes the existence of [obj]"
- [8] "[subj] causes the activity [obj] not to happen"
- [9] "in at most 90% of cases"
- [10] "in at least 90% of cases"
- [11] "in at least 90% of cases"
- [12] "in at least 90% of cases"
- [13] "[subj] contributes to the activity of [obj] in sense of positively affecting its intensity or frequency"
- [14] "[subj] inhibits the activity of [obj] in sense of negatively affecting its intensity or frequency"
- [15] "[subj] causes the value of [obj] to decrease"
- [16] "[subj] affects the activity of [obj] in the sense of positively or negatively affecting its intensity or frequency"
- [17] "in at least 90% of cases"
- [18] "in at least 90% of cases"
- [19] "in at least 90% of cases"
- [20] "in at least 90% of cases"

- [21] "[subj] contributes to the activity of [obj] in sense of positively affecting its intensity or frequency"
- [22] "[subj] contributes to the activity of [obj] in sense of positively affecting its intensity or frequency"
- [23] "[subj] and [obj] are the same individual"
- [24] "[subj] causes the value of [obj] to increase"
- [25] "can in at least 10% of cases"
- [26] "can in at least 10% of cases"
- [27] "can in at least 90% of cases"
- [28] "can in at least 90% of cases"
- [29] "[subj] causes the value of [obj] to decrease"
- [30] "[subj] contributes to the activity of [obj] in sense of positively affecting its intensity or frequency"
- [31] "[subj] contributes to the activity of [obj] in sense of positively affecting its intensity or frequency"
- [32] "[subj] causes the activity of [obj] to happen"
- [33] "in 100% of cases"
- [34] "in 100% of cases"
- [35] "in 100% of cases"
- [36] "in 100% of cases"
- [37] "[quantifiable subj] has the same value as [quantifiable obj]"
- [38] "[subj] and [obj] are the same individual"
- [39] "[quantifiable subj] has the same value as [quantifiable obj]"
- [40] "[quantifiable subj] has the same value as [quantifiable obj]"

[41] "can in at least 90% of cases"

[42] "can in at least 90% of cases"

[43] "can in at least 90% of cases"

[44] "can in at least 90% of cases"

[45] "[subj] causes the existence of [obj]"

[46] "[subj] causes the existence of [obj]"

[47] "[subj] causes the activity of [obj] to happen"

[48] "[subj] causes the activity of [obj] to happen"

[49] "in at least 90% of cases"

[50] "in at least 90% of cases"

[51] "in at least 90% of cases"

[52] "in at least 90% of cases"

[53] "[subj] would not exist if [obj] did not exist"

[54] "[subj] contributes to the activity of [obj] in sense of positively affecting its intensity or frequency"

[55] "[subj] would not exist if [obj] did not exist"

[56] "[subj] would not exist if [obj] did not exist"

[57] "in at least 50% of cases"

[58] "in at least 90% of cases"

[59] "in at least 50% of cases"

[60] "in at least 50% of cases"

[61] “[subj] contributes to the activity of [obj] in sense of positively affecting its intensity or frequency”

[62] “[subj] causes the activity of [obj] to happen”

[63] “[subj] is close to [obj] in terms of space and time”

[64] “the existence of [subj] is caused by [obj]”

[65] “in at least 90% of cases”

[66] “in 100% of cases”

[67] “in 100% of cases”

[68] “can in at least 50% of cases”

[69] “[subj] spatio-temporally includes [obj]”

[70] “[quantifiable subj] has a larger value than [quantifiable obj]”

[71] “[subj] causes the value of [obj] to increase”

[72] “[subj] contributes to the activity of [obj] in sense of positively affecting its intensity or frequency”

[73] “in at least 90% of cases”

[74] “in at least 90% of cases”

[75] “in at least 90% of cases”

[76] “can in at least 10% of cases”

[77] “[quantifiable subj] has a larger value than [quantifiable obj]”

[78] “[obj] spatio-temporally includes [subj]”

[79] “[subj] spatio-temporally includes [obj]”

[80] "[obj] spatio-temporally includes [subj]"

[81] "in at least 50% of cases"

[82] "in at least 50% of cases"

[83] "in at least 90% of cases"

[84] "in at least 90% of cases"

[85] "[subj] causes the value of [obj] to decrease"

[86] "[subj] causes the value of [obj] to decrease"

[87] "[subj] causes the value of [obj] to decrease"

[88] "[subj] causes the value of [obj] to decrease"

[89] "in at least 0.1% of cases"

[90] "in at least 0.1% of cases"

[91] "can in at least 0.1% of cases"

[92] "in at least 90% of cases"

[93] "[obj] spatio-temporally includes [subj]"

[94] "[subj] spatio-temporally includes [obj]"

[95] "[obj] spatio-temporally includes [subj]"

[96] "[subj] is close to [obj] in terms of space and time"

[97] "can in at least 90% of cases"

[98] "can in at least 90% of cases"

[99] "can in at least 90% of cases"

[100] "can in at least 90% of cases"

[101] "[subj] contributes to the activity of [obj] in sense of positively affecting its intensity or frequency"

[102] "[subj] causes the activity of [obj] to happen"

[103] "[subj] causes the value of [obj] to increase"

[104] "[subj] causes the existence of [obj]"

[105] "in 100% of cases"

[106] "in 100% of cases"

[107] "in 100% of cases"

[108] "in 100% of cases"

[109] "[obj] spatio-temporally includes [subj]"

[110] "[subj] contributes to the activity of [obj] in sense of positively affecting its intensity or frequency"

[111] "[subj] and [obj] are the same individual"

[112] "[subj] and [obj] are the same individual"

[113] "can in at least 90% of cases"

[114] "in 100% of cases"

[115] "can in at least 90% of cases"

[116] "in at least 90% of cases"

[117] "[subj] causes the existence of [obj]"

[118] "[subj] causes the existence of [obj]"

[119] "[subj] causes the existence of [obj]"

[120] "[subj] would not exist if [obj] did not exist"

[121] "in at most 10% of cases"

[122] "in at most 10% of cases"

[123] "in at most 10% of cases"

[124] "in at most 10% of cases"

[125] "[subj] inhibits the activity of [obj] in sense of negatively affecting its intensity or frequency"

[126] "[subj] affects the activity of [obj] in the sense of positively or negatively affecting its intensity or frequency"

[127] "[subj] affects the activity of [obj] in the sense of positively or negatively affecting its intensity or frequency"

[128] "[subj] affects the activity of [obj] in the sense of positively or negatively affecting its intensity or frequency"

[129] "can in at least 90% of cases"

[130] "in at least 90% of cases"

[131] "in at least 90% of cases"

[132] "can in at least 90% of cases"

[133] "[subj] contributes to the activity of [obj] in sense of positively affecting its intensity or frequency"

[134] "[subj] affects the activity of [obj] in the sense of positively or negatively affecting its intensity or frequency"

[135] "[subj] causes the existence of [obj]"

[136] "[subj] causes the activity of [obj] to happen"

[137] "in 100% of cases"

[138] "in 100% of cases"

[139] "can in at least 90% of cases"

[140] "[subj] and [obj] are the same individual"

[141] "[subj] causes the value of [obj] to decrease"

[142] "[subj] contributes to the activity of [obj] in sense of positively affecting its intensity or frequency"

[143] "in 100% of cases"

[144] "in 100% of cases"

[145] "in at least 90% of cases"

[146] "[obj] spatio-temporally includes [subj]"

[147] "[obj] spatio-temporally includes [subj]"

[148] "[subj] spatio-temporally includes [obj]"

[149] "in at least 50% of cases"

[150] "in at least 90% of cases"

[151] "in at least 90% of cases"

[152] "[quantifiable subj] has a value that is similar with [quantifiable obj]"

[153] "[subj] and [obj] are the same individual"

[154] "[subj] and [obj] are the same individual"

[155] "in at least 90% of cases"

[156] "in at least 50% of cases"

[157] "in at least 90% of cases"

[158] "in at least 90% of cases"

[159] "[subj] causes the existence of [obj]"

[160] "[subj] causes the existence of [obj]"

[161] "[subj] affects the activity of [obj] in the sense of positively or negatively affecting its intensity or frequency"

[162] "[subj] causes the activity of [obj] to happen"

[163] "can in 100% of cases"

[164] "can in at least 90% of cases"

[165] "can in at least 90% of cases"

[166] "can in at least 90% of cases"

[167] "[subj] causes the activity of [obj] to happen"

[168] "[subj] causes the existence of [obj]"

[169] "[subj] contributes to the activity of [obj] in sense of positively affecting its intensity or frequency"

[170] "[subj] contributes to the activity of [obj] in sense of positively affecting its intensity or frequency"

[171] "can in at least 90% of cases"

[172] "can in at least 90% of cases"

[173] "can in at least 90% of cases"

[174] "can in at least 90% of cases"

[175] "[subj] causes the activity of [obj] to happen"

[176] "[subj] contributes to the activity of [obj] in sense of positively affecting its intensity or frequency"

[177] "[subj] causes the activity of [obj] to happen"

[178] "[subj] affects the activity of [obj] in the sense of positively or negatively affecting its intensity or frequency"

[179] "in at least 90% of cases"

[180] "in 100% of cases"

[181] "in at least 90% of cases"

[182] "in 100% of cases"

[183] "[subj] causes the existence of [obj]"

[184] "[quantifiable subj] has a larger value than [quantifiable obj]"

[185] "[obj] spatio-temporally includes [subj]"

[186] "[subj] and [obj] are the same individual"

[187] "in at least 90% of cases"

[188] "can in at least 90% of cases"

[189] "can in at least 90% of cases"

[190] "in at least 90% of cases"

[191] "[subj] and [obj] are the same individual"

[192] "[subj] and [obj] are the same individual"

[193] "[subj] contributes to the activity of [obj] in sense of positively affecting its intensity or frequency"

[194] "[subj] causes the activity [obj] not to happen"