

How to read a scientific paper

part 3

Using tenses in scientific writing

Discussion

A combination of tenses to highlight past research and future directions

Present, Past, present perfect

MODALITY

Using tenses in scientific writing

MODALITY

May	can	must	shall	will
Might	could		should	would

Modalisation interne : S - MODAL - P

He must feel desperate

Modalisation externe : Modalisation - (S/P)

It's possible that he feels desperate

Using tenses in scientific writing

MODALITY

Caractéristiques grammaticales des modaux

- **Pas de –s à la 3^{ème} personne du singulier**
- **Ne sont pas suivis de TO + base verbale**
- **Ne sont pas précédés de TO**
- **Ne se conjuguent pas avec auxiliaire DO**
- **N' acceptent pas –ING**

La modalité

Qu' est-ce qu' un modal ?

Dictum he/feel desperate (S/P)



Modus Must (opérateur d' intervention sur S/P)

Le terme modal est lié au mode (mood) : idée de manière

E manifeste une attitude / prise de position sur la RP

Donne son avis sur les conditions ou les chances de réalisation de S/P

Possible, impossible, nécessaire, souhaitable, inévitable, logique, acceptable etc.

La modalité

Deux pôles sémantiques des modaux

Emploi épistémique / Emploi non épistémique

Chaque modal présente ces 2 interprétations

he must be over 25 / He must work

Deux pôles sémantiques des modaux : Emploi épistémique

E déduit la possibilité d'existence de S/P, il fait intervenir sa connaissance en fonction d'un raisonnement

He must be over 25

E : « misant sur mes capacités d'évaluation de la situation et de raisonnement, je DEDUIS que la relation S/P (he/be over 25) à toutes les chances d'être vraie »

Modaux épistémiques paraphrasables par :

It is possible that S/P

It is probable that S/P

S/P is likely to be true

S/P is necessarily true

Deux pôles sémantiques des modaux : Emploi épistémique

S/P < E (= S/P provient d' un raisonnement de E)

Relation Prédicative sous domination de E

**C' est E qui décide des chances de véracité de R/P
en fonction de ce qu' il voit, pressent, connaît**

Deux pôles sémantiques des modaux : Emploi épistémique

S / P < E

E déduit, S/ P est le produit d' un raisonnement d' E

E donne son avis (du plus au moins certain) avec la MEME implication

Must : He must be mad

Négation must épistémique : can' t : he can' t be mad

Congruence

Deux pôles sémantiques des modaux : Emploi épistémique

S / P < E

Will

That will be the milkman

**E se fie aux habitudes de S avec Will,
avec Must s' appuie sur indices précis**

Toujours Congruence : S et P « vont bien ensemble » aux yeux d' E

Deux pôles sémantiques des modaux : Emploi épistémique

Degré de certitude de E

Modal	Modalité épistémique
must	Forte probabilité
Can	Forte probabilité
will	Forte certitude
May	Probabilité 50/50
Could	Probabilité faible
might	Très faible probabilité
Should	Ce qui devrait être

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MODALITY

One possible explanation for the absent or weak behavioral response to mother's voice that **can be ruled out** is that infants **could not recognize** the maternal voice in the brief sample. Previously published ERP studies demonstrate otherwise, at least in infants without complicated prenatal and birth histories. Moreover, previous sucking experiments have shown that neonates **can respond** differentially to brief speech samples such as vowels or syllables.

Moon et al, Frontiers, 2015

Using tenses in scientific writing

Discussion

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Present, Past, present perfect

MODALITY

The rightward asymmetry that we observed **could** also arise as a result of infants' increased sensitivity to prosodic features of speech. To this end, infant-directed speech, which consists of exaggerated prosodic contours, is known to be tightly coupled to advanced development of speech in the first years of life (Ramirez-Esparza et al., 2014). Future longitudinal and cross-sectional studies **should** explore when and how the neural processing of phonemes becomes more left lateralized over development.

While remaining in a state of heightened neural plasticity **may cause** slower growth of each of the languages, it also leads to a heightened sensitivity of the prefrontal cortex in responding to speech sounds, **which may be related** to more efficient cognitive resources for performing executive function tasks

Ramirez et al, Frontiers, 2016

Previous studies (demonstrate) _____ that both visual and proprioceptive feedback (influence) _____ motor control. The relative contributions of these sensory modalities to the on-line computation of body position-that is, the body schema- (remain) _____ unclear. We (report) _____ a study designed to explore the roles of vision and proprioception in motor planning . The task (require) _____ subjects to judge if a pictured stimulus (be) _____ a right or left hand; stimuli (include) _____ pictures of a right or left hand in a palm up or palm down position and in six different angular rotations (0 degrees , 60 degrees , 120 degrees , 180 degrees , 240 degrees , 300 degrees). Each subject (test) _____ with his/her right hand palm down and palm up.

Previous studies have demonstrated that both visual and proprioceptive feedback influence motor control. The relative contributions of these sensory modalities to the on-line computation of body position--that is, the body schema--remain unclear. We report a study designed to explore the roles of vision and proprioception in motor planning. The task required subjects to judge if a pictured stimulus was a right or left hand; stimuli included pictures of a right or left hand in a palm up or palm down position and in six different angular rotations (0 degrees , 60 degrees , 120 degrees , 180 degrees , 240 degrees , 300 degrees). Each subject was tested with his/her right hand palm down and palm up.

There (be)_____ three conditions: a "control" condition (real hand in view), a "fake hand" condition (fake hand in view, real hand out of view), and a "proprioception" condition (no fake hand, real hand out of view). We (find)_____ that proprioceptive input (that is, the subject's "felt position") (have)_____ a significant influence on mental rotation whereas the visually perceived posture of the hand did not. We (suggest)_____ that, at least under some circumstances, proprioceptive inflow (represent)_____ the dominant sensory input to the on-line representation of the body in space

There were three conditions: a "control" condition (real hand in view), a "fake hand" condition (fake hand in view, real hand out of view), and a "proprioception" condition (no fake hand, real hand out of view). We found that proprioceptive input (that is, the subject's "felt position") had a significant influence on mental rotation whereas the visually perceived posture of the hand did not. We suggest that, at least under some circumstances, proprioceptive inflow may represent the dominant sensory input to the on-line representation of the body in space.

Pronoms relatifs

There are five basic relative pronouns: who, whom, whose, which, that

Who (subject) and whom (object) are generally only for people.

Whose is for possession.

Which is for things.

That can be used for things and people only in ***defining relative clauses*** (clauses that are essential to the sentence and do not simply add extra information)

Pronoms relatifs

defining relative clauses

S=subject, O=object, P=possessive

S - The person who phoned me last night is my teacher.

- The person that phoned me last night is my teacher.

- The car which hit me was yellow.

- The car that hit me was yellow.

O - The person whom I phoned last night is my teacher.

- The people who I phoned last night are my teachers.

- The person that I phoned last night is my teacher.

- The person I phoned last night is my teacher.

- - The car which I drive is old.

- The car that I drive is old.

- The car I drive is old.

P - The student whose phone just rang should stand up.

- Students whose parents are wealthy pay extra.

- The police are looking for the car whose driver was masked.

- The police are looking for the car of which the driver was masked

Pronoms relatifs

non defining relative clauses

S=subject, O=object, P=possessive

S - Mrs Pratt, **who** is very kind, is my teacher.

- The car, **which** was a taxi, exploded.
- The cars, **which** were taxis, exploded.

O - Mrs Pratt, **whom** I like very much, is my teacher.

- Mrs Pratt, **who** I like very much, is my teacher.
- The car, **which** I was driving at the time, suddenly caught fire.

P - My brother, **whose** phone you just heard, is a doctor.

- The car, **whose** driver jumped out just before the accident, was completely destroyed.
- The car, the driver **of which** jumped out just before the accident, was completely destroyed.

Order of typical elements included in an abstract

Background

1: some background information

2: the principal purpose of the study

3: some information about the methodology of the study

4: the most important results of the study

5: a statement of conclusion

Seven studies using experimental and naturalistic methods reveal that upper-class individuals behave more unethically than lower class individuals. In studies 1 and 2, upper-class individuals were more likely to break the law while driving, relative to lower-class individuals. In follow-up laboratory studies, upper-class individuals were more likely to exhibit unethical decision-making tendencies (study 3), take valued goods from others (study 4), lie in a negotiation (study 5), cheat to increase their chances of winning a prize (study 6), and endorse unethical behavior at work (study 7) than were lower class individuals. Mediator and moderator data demonstrated that upper-class individuals' unethical tendencies are accounted for, in part, by their more favorable attitudes toward greed..

Attention à google trad.... vocabulary

Light (adjectif): - clair (not dark)
- basses calories (not high calorie)
- léger (not heavy)

the paint is too light	×	la peinture est trop léger
English Spanish French Detect language ▾	↔	French English Spanish ▾ Translate
novel idea	×	idée de roman
a novel idea	×	une idée nouvelle
that's a novel idea	×	voilà une idée originale
what a novel idea	×	ce une idée nouvelle

Collins

Please enter the text to be translated:

the paint is too light
novel idea
a novel idea
that's a novel idea
what a novel idea

English to French translation

la peinture est trop légère
idée nouvelle
idée originale
qui est une idée nouvelle
quelle idée originale

Powered by Microsoft® Translator

Online-Translator.com

English



French




TRANSLATE




the paint is too light
novel idea
a novel idea
that's a novel idea
what a novel idea


la peinture est claire trop
idée originale
une idée originale
c'est une idée originale
quelle idée originale

Reverso

1 Your source text 	 	2 Reverso Translation in French 
the paint is too light novel idea a novel idea that's a novel idea what a novel idea		La peinture est trop légère Nouvelle idée Une nouvelle idée C'est une nouvelle idée Quelle nouvelle idée

SDL FreeTranslation.com

From **English**   To **French**  **Translate**

the paint is too light novel idea a novel idea that's a novel idea what a novel idea		La peinture est trop pâle idée nouvelle d' une idée novatrice que c'est une idée nouvelle une idée novatrice
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Attention à google trad.... vocabulary

The screenshot shows the Google Translate interface with two columns. The left column is labeled 'Anglais' and contains the English text: 'Uber's board of directors has picked Dara Khosrowshahi to be the company's next CEO, according to Recode and the New York Times, filling the spot that was vacated by Travis Kalanick back in June. Khosrowshahi comes from Expedia where he has been CEO since 2005. The board met throughout the weekend, and was choosing between Khosrowshahi and Hewlett Packard Enterprise CEO Meg Whitman.' Below the text is a 'Modifier' link. The right column is labeled 'Français' and contains the French translation: 'Le conseil d'administration d'Uber a choisi Dara Khosrowshahi pour être le prochain PDG de l'entreprise, selon Recode et le New York Times, remplissant l'emplacement qui a été laissé à l'écart par Travis Kalanick en juin. Khosrowshahi vient d'Expedia où il a été PDG depuis 2005. Le conseil s'est réuni tout au long du week-end et a choisi entre Khosrowshahi et Hewlett Packard Enterprise CEO Meg Whitman.' At the bottom of the interface, there are links for 'Ouvrir dans Google Traduction' and 'Commentaires', and a 'Traducteur' button with a hamburger menu icon.

This section compares two translations of the same English text. On the left, under the heading 'Translate from ANGLAIS (detected)', is the Google translation. On the right, under the heading 'Traduire en FRANÇAIS', is the DeepL translation. A yellow arrow points from the Google translation to the DeepL translation, highlighting the differences.

Google Translation: Uber's board of directors has picked Dara Khosrowshahi to be the company's next CEO, according to Recode and the New York Times, filling the spot that was vacated by Travis Kalanick back in June. Khosrowshahi comes from Expedia where he has been CEO since 2005. The board met throughout the weekend, and was choosing between Khosrowshahi and Hewlett Packard Enterprise CEO Meg Whitman.

DeepL Translation: Le conseil d'administration d'Uber a choisi Dara Khosrowshahi pour être le prochain PDG de l'entreprise, selon Recode et le New York Times, en comblant le poste qui a été libéré par Travis Kalanick en juin dernier. Khosrowshahi vient d'Expedia où il est CEO depuis 2005. Le conseil s'est réuni tout au long de la fin de semaine et a choisi entre Khosrowshahi et Meg Whitman, PDG de Hewlett Packard Enterprise.

Google a traduit « remplissant l'emplacement » quand DeepL a compris qu'il s'agissait d'un poste dans le contexte d'une traduction qui tourne autour d'une embauche. Le deuxième piège est celui de la syntaxe que Google n'a pas respectée sur la fin (weekend)

I am|by birth a Genevese; and my family is one of the most distinguished of that republic. My ancestors had been for many years counsellors and syndics; and my father had filled several public situations with honour and reputation. He was respected by all who knew him, for his integrity and indefatigable attention to public business.

Je suis de naissance un Genevois; Et ma famille est l'une des plus distinguées de cette république. Mes ancêtres étaient depuis de nombreuses années des conseillers et des syndics; Et mon père avait rempli plusieurs situations publiques avec honneur et réputation. Il a été respecté par tous ceux qui l'ont connu, pour son intégrité et son attention infatigable aux affaires publiques.

Je suis genevois de naissance, et ma famille est l'une des plus distinguées de cette république. Mes ancêtres avaient été pendant de nombreuses années des conseillers et des syndics; et mon père avait rempli plusieurs situations publiques d'honneur et de réputation. Il était respecté par tous ceux qui le connaissaient, pour son intégrité et son attention inlassable aux affaires publiques.

Je suis né à Genève ; et ma famille est l'une des plus distinguée de cette république. Mes ancêtres étaient depuis de nombreuses années conseillers et syndics ; et mon père avait rempli avec honneur et gloire plusieurs fonctions publiques. Tous ceux qui le connaissaient respectaient son intégrité et son dévouement infatigable au bien public. Sa jeunesse fut tout entière consacrée aux affaires de son pays ; diverses circonstances l'avaient empêché de se marier tôt, et ce ne fut que sur le déclin de sa vie qu'il devint époux et père de famille.

vocabulary

New studies are interesting to the extent that they can shed new light on certain project features.

↳ www2.parl.gc.ca


Les nouvelles études sont intéressantes dans la mesure où elles peuvent apporter un éclairage différent sur certains aspects du projet.

↳ www2.parl.gc.ca

Shed new light: Examining how social class is associated with unethical behavior, or actions that harm others and are illegal or morally objectionable to one's community (1), would shed light on behaviors

Higher social class predicts increased unethical behavior, Piff et al, PNAS, 2012

vocabulary

cheating  *nom*

tricherie *f*  

triche *f* 

plus rare :

fraude *f*   · tricheries *pl*  · tromperie *f*   · plagiat *m*   · escroquerie *f*   ·

duperie *f*  

cheating = tricherie

Cheating:

on behaviors such as cheating, deception, or breaking the law that have important consequences for society.

Higher social class predicts increased unethical behavior, Piff et al, PNAS, 2012

vocabulary

overcome (sb./sth.)  *verbe* (overcame, overcome)

surmonter *v*  

He makes friends easily when he overcomes his shyness.

I have finally overcome my fear of spiders.

Il se fait des amis facilement quand il surmonte sa timidité.

J'ai enfin surmonté ma peur des araignées.

résoudre qqch. *v*  

I am confident we can overcome this problem.

Je suis convaincu que nous pouvons résoudre ce problème.

franchir *v*  

He overcame many obstacles to make his project a success.

Il a franchi de nombreux obstacles pour réussir son projet.

vaincre qqch./qqn. *v*  

My wife helped me to overcome my fear of dogs.

She overcame all the obstacles on the path to victory.



Ma femme m'a aidé à vaincre ma peur des chiens.

Elle a vaincu tous les obstacles sur le chemin de la victoire.

maîtriser qqch./qqn. *v*  

I struggled to overcome my fear of heights.

Je me suis efforcée de maîtriser ma peur des hauteurs.

dominer qqch./qqn. *v*  

The wrestler overcame his opponent to win the match.


Le lutteur a dominé son adversaire pour remporter le combat.



Overcome

lower-class individuals may be more motivated to behave unethically to increase their resources or overcome their disadvantage.







Higher social class predicts increased unethical behavior, Piff et al, PNAS, 2012

vocabulary

give rise to (sth.)  *verbe*

donner lieu à qqch. *v*  

plus rare :














engendrer qqch. *v*   · causer *v*   · déclencher qqch. *v*  

give rise  *verbe* (gave, given)

provoquer *v*  

Give rise to Greater resources, freedom, and independence from others among the upper class give rise to self-focused social cognitive tendencies


vocabulary



led  – mené  · dirigé  · dirigée  · guidé  · piloté  · axé 
credence *n*  – crédit *m*  · crédibilité *f*  · crédence *f*  · foi *f*  · croyance *f* 
[...]

Lend credence Historical observation lends credence to this idea.

Higher social class predicts increased unethical behavior, Piff et al, PNAS, 2012

vocabulary

extol (sb./sth.)  *verbe* (extolled, extolled) (*également* : extoll)

vanter *v*  


exalter qqch./qqn. *v*  

plus rare :

chanter les louanges *v*   · louer qqch./qqn. *v*   · prôner qqch. *v*   · communiquer *v* 



glorifier qqch./qqn. *v*   · faire étalage *v*  

Extol Religious teachings extol the poor and admonish the rich with claims like, “It will be hard for a rich person to enter the kingdom of heaven”
Admonish

admonish (sb.)  *verbe* (admonished, admonished)

réprimander *v*  

plus rare :

admonester qqn. *v*  · disputer qqn. *v*  · gronder qqn. *v*  · donner un avertissement à qqn. *v*

vocabulary

greed ◀ nom

cupidité *f* ◀ ⓘ

convoitise *f* ⓘ

He accepted the bribe out of greed.

Il a accepté le pot-de-vin par convoitise.

gourmandise *f* ◀ ⓘ

Out of greed, he ate the entire cake.

Par gourmandise, il a mangé le gâteau tout entier.

plus rare :

greed

Building upon past findings, in the present investigation we tested whether upper-class individuals—relative to lower-class individuals are more likely to engage in unethical behavior, and whether their attitudes toward greed might help explain this tendency.

Here you are

Which social class is the more likely provenance of unethical behavior, the upper class or the lower class?

Which refers to what???

The upper class or the lower class

Here you are

Examining how social class is associated with unethical behavior, or actions that harm others and are illegal or morally objectionable to one's community (1), would shed light on behaviors such as cheating, deception, or breaking the law that have important consequences for society.

Sujet de « would shed new light »

Here you are

On the one hand, lower-class individuals live in environments defined by fewer resources, greater threat, and more uncertainty (2, 3).

On the one hand.... On the other hand.... Where is it? Is it written on the other hand?

A second line of reasoning, however, suggests the opposite prediction: namely, that the upper class may be more disposed to the unethical.

Find tenses, aspects, modal verbs

Examining how social class is associated with unethical behavior, or actions that harm others and are illegal or morally objectionable to one's community (1), would shed light on behaviors such as cheating, deception, or breaking the law that have important consequences for society. On the one hand, lower-class individuals live in environments defined by fewer resources, greater threat, and more uncertainty (2, 3). It stands to reason, therefore, that lower-class individuals may be more motivated to behave unethically to increase their resources or overcome their disadvantage. A second line of reasoning, however, suggests the opposite prediction: namely, that the upper class may be more disposed to the unethical. Greater resources, freedom, and independence from others among the upper class give rise to self-focused social-cognitive tendencies (3–7), which we predict will facilitate unethical behavior. Historical observation lends credence to this idea. For example, the recent economic crisis has been attributed in part to the unethical actions of the wealthy (8). Religious teachings extol the poor and admonish the rich with claims like, “It will be hard for a rich person to enter the kingdom of heaven” (9). Building upon past findings, in the present investigation we tested whether upper-class individuals—relative to lower-class individuals—are more likely to engage in unethical behavior, and whether their attitudes toward greed might help explain this tendency.

Find tenses, aspects, modal verbs

Examining how social class **is associated with** unethical behavior, or actions that **harm** others and **are** illegal or morally objectionable to one's community (1), **would shed light** on behaviors such as cheating, deception, or breaking the law that **have** important consequences for society. On the one hand, lower-class individuals **live** in environments defined by fewer resources, greater threat, and more uncertainty (2, 3). It **stands** to reason, therefore, that lower-class individuals **may be more motivated** to behave unethically to increase their resources or overcome their disadvantage. A second line of reasoning, however, **suggests** the opposite prediction: namely, that the upper class **may be more disposed** to the unethical. Greater resources, freedom, and independence from others among the upper class **give rise** to self-focused social-cognitive tendencies (3–7), which we **predict will facilitate** unethical behavior. Historical observation **lends credence** to this idea. For example, the recent economic crisis **has been attributed** in part to the unethical actions of the wealthy (8). Religious teachings **extol** the poor and **admonish** the rich with claims like, “It **will be** hard for a rich person to enter the kingdom of heaven” (9). Building upon past findings, in the present investigation we **tested** whether upper-class individuals—relative to lower-class individuals—**are more likely** to engage in unethical behavior, and whether their attitudes toward greed **might help explain** this tendency.

Find linking words

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Outil d'aide à la compréhension du vocabulaire scientifique. Mathieu REVRANCHE

