

Class participation is worth 20% of your grade!

- One good answer per class is sufficient to obtain a full mark for one class.
- If you have good question during class, you will also be rewarded with participation points.
- If I have missed tracking your participation, feel free to find me after class.

Exercise 1: Find this paper on PubMed and full text (PDF) of the paper.

Ocular Dominance Plasticity: A Mini-Review

Seung Hyun Min

Department of Psychology, Zhejiang Sci-Tech University, Hangzhou, People's Republic of China

Correspondence: Seung Hyun Min, Email sammin95@gmail.com

Abstract: Ocular dominance plasticity, the ability of the brain to change sensory eye balance, has traditionally been believed to be extremely limited in adult visual cortex. However, recent studies on short-term monocular deprivation (MD) demonstrate that its presence is prevalent in adult humans, as short-term MD is capable of significantly shifting ocular dominance in favor of the previously deprived eye. Thus, findings over the last 15 years highlight that short-term MD can be a promising alternative treatment for amblyopia, a neurodevelopmental disorder characterized by binocular imbalance. Conventionally, amblyopia has been treated with patching therapy, which shows limited effectiveness in restoring binocularity of adults and is associated with poor compliance rate and high psychosocial distress. Thus, it is an opportune time to explore how short-term MD can be utilized as an alternative treatment option for restoring amblyopic vision, especially individuals who do not respond robustly to standard treatment. This review provides an overview of foundational studies on ocular dominance plasticity in both visually intact and impaired observers. It also evaluates the potential of short-term MD as a treatment for amblyopia and suggests its future research directions, including the integration of multimodal therapeutic strategies that include short-term MD.



"Ocular dominance plasticity"



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“Ocular dominance plasticity”: Quotations to perform exact search

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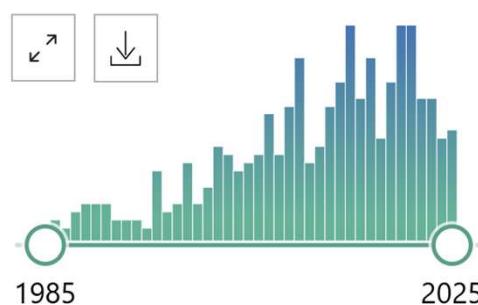
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RESULTS BY YEAR



PUBLICATION DATE



[Ocular dominance plasticity: Molecular mechanisms revisited.](#)

1 Kasamatsu T, Imamura K.

Cite

J Comp Neurol. 2020 Dec 1;528(17):3039-3074. doi: 10.1002/cne.25001. Epub 2020 Sep 8.

PMID: 32737874 Review.

Ocular dominance plasticity (ODP) is a type of cortical plasticity operating in visual cortex of mammals that are endowed with binocular vision based on the competition-driven disparity. ...



[Ocular Dominance Plasticity: A Mini-Review.](#)

2 Min SH.



"ocular dominance plasticity"



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Ey · Brain. 2025 Jun 10:17:37-48. doi: 10.2147/EB.S532627. eCollection 2025.

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Ocular Dominance Plasticity: A Mini-Review

Seung Hyun Min ¹

Affiliations + expand

PMID: 40519698 PMCID: [PMC12166856](#) DOI: [10.2147/EB.S532627](#)

Abstract

Ocular dominance plasticity, the ability of the brain to change sensory eye balance, has traditionally been believed to be extremely limited in adult visual cortex. However, recent studies on short-term monocular deprivation (MD) demonstrate that its presence is prevalent in adult humans, as short-term MD is capable of significantly shifting ocular dominance in favor of the previously deprived eye. Thus, findings over the last 15 years highlight that short-term MD can be a promising alternative

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Ocular Dominance Plasticity: A Mini-Review

Seung Hyun Min^{1,✉}

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Online literature search using search engines (part 1)

Literature Retrieval and Utilization 67903

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- PubMed is a service of the US National Library of Medicine (NLM) at the National Institute of Health (NIH).
- It was developed in 1996 by the National Center of Biotechnology Information (NCBI) at the National Library of Medicine.
- Provides free access to MEDLINE, which is the NLM's database that contains references to journal articles in life sciences.
- It also includes additional journals not in MEDLINE (including psychology journals).

Exercise 2: Find a paper with these features in PubMed

- Title has the word “**cycling**”
- Author list includes **Robert Hess**
 - First name: Robert; Last name: Hess
- There are **4 authors** total.
- <https://www.ncbi.nlm.nih.gov/pubmed>

When did this paper get published (year of publication)?

Where is the paper published (name of journal)?



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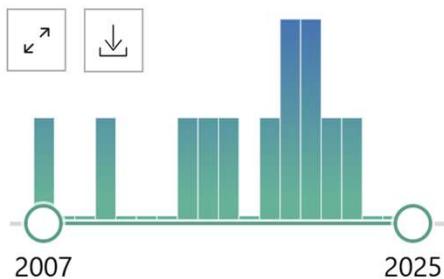
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RESULTS BY YEAR



PUBLICATION DATE

1 year

5 years

[Balanced Binocular Inputs Support Superior Stereopsis.](#)

1 Wang X, Baldwin AS, **Hess RF**.

Cite Invest Ophthalmol Vis Sci. 2021 Sep 2;62(12):10. doi: 10.1167/iovs.62.12.10.

PMID: 34515732 [Free PMC article.](#)

All of our tests were performed using stimuli of the same spatial frequency (2.5 **cycles/degree**). RESULTS:

We found a relationship between stereoacuity and sensory eye imbalance. ...

[Visual plasticity and exercise revisited: No evidence for a "cycling lane".](#)

2 Finn AE, Baldwin AS, Reynaud A, **Hess RF**.

Cite J Vis. 2019 Jun 3;19(6):21. doi: 10.1167/19.6.21.

PMID: 31246227 [Free article.](#)



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> J Vis. 2019 Jun 3;19(6):21. doi: 10.1167/19.6.21.

Visual plasticity and exercise revisited: No evidence for a "cycling lane"

Abigail E Finn ¹, Alex S Baldwin ¹, Alexandre Reynaud ¹, Robert F Hess ¹

Affiliations + expand

PMID: 31246227 DOI: [10.1167/19.6.21](https://doi.org/10.1167/19.6.21)

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Published in June 2019 in *Journal of Vision*



June 2019
Volume 19, Issue 6

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Article | June 2019

Visual plasticity and exercise revisited: No evidence for a “cycling lane”

Abigail E. Finn; Alex S. Baldwin; Alexandre Reynaud; Robert F. Hess

+ Author Affiliations

Journal of Vision June 2019, Vol.19, 21. doi:<https://doi.org/10.1167/19.6.21>

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Exercise 3: Find a paper with these features in PubMed

- Title has the word “**motion extrapolation**”
- First author is **Xi Wang**
 - First name: Xi; Last name: Wang
- There are **6 authors** total.
- <https://www.ncbi.nlm.nih.gov/pubmed>

When did this paper get published (year of publication)?

Where is the paper published (name of journal)?



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National Center for Biotechnology Information

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motion extrapolation xi wang



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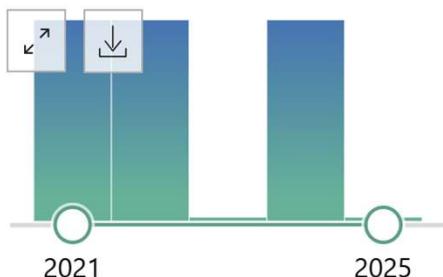
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RESULTS BY YEAR



Corrective mechanisms of **motion extrapolation**.

1 **Wang X**, Song Y, Liao M, Liu T, Liu L, Reynaud A.

Cite J Vis. 2024 Mar 1;24(3):6. doi: 10.1167/jov.24.3.6.

PMID: 38512248 [Free PMC article](#).

Transmission and processing of sensory information in the visual system takes time. For **motion** perception, our brain can overcome this intrinsic neural delay through **extrapolation** mechanisms and accurately predict the current position of a continuously moving object ...



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> J Vis. 2024 Mar 1;24(3):6. doi: 10.1167/jov.24.3.6.

Corrective mechanisms of motion extrapolation

Xi Wang ^{1 2 3}, Yutong Song ^{1 4}, Meng Liao ^{1 5}, Tong Liu ^{1 6}, Longqian Liu ^{1 7},
Alexandre Reynaud ^{2 8}

Affiliations + expand

PMID: 38512248 PMCID: PMC10960225 DOI: 10.1167/jov.24.3.6

Abstract

Transmission and processing of sensory information in the visual system takes time. For motion perception, our brain can overcome this intrinsic neural delay through extrapolation mechanisms and accurately predict the current position of a continuously moving object. But how does the system

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Published in March 2024 in *Journal of Vision*

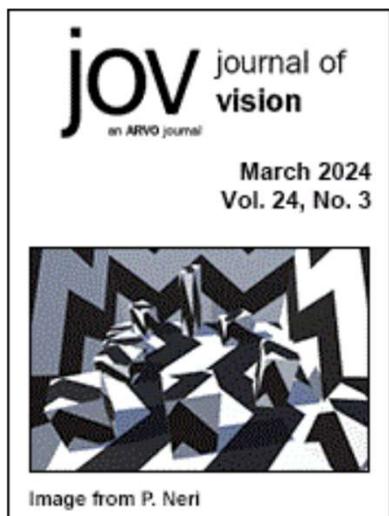


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March 2024
Volume 24, Issue 3

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Article | March 2024

Corrective mechanisms of motion extrapolation

[Xi Wang; Yutong Song; Meng Liao; Tong Liu; Longqian Liu; Alexandre Reynaud](#)

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Journal of Vision March 2024, Vol.24, 6. doi:<https://doi.org/10.1167/jov.24.3.6>

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Sometimes, we are interested in finding works of a certain individual because of his/her influence in the field.



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> J Vis. 2024 Mar 1;24(3):6. doi: 10.1167/jov.24.3.6.

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Corrective mechanisms of motion extrapolation

Xi Wang ^{1 2 3}, Yutong Song ^{1 4}, Meng Liao ^{1 5}, Tong Liu ^{1 6}, Longqian Liu ^{1 7},
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Corrective mechanisms of motion extrapolation

Xi Wang ^{1 2 3}, Yutong Song ^{1 4}, Meng Liao ^{1 5}, Tong Liu ^{1 6}, Longqian Liu ^{1 7},
Alexandre Reynaud ^{2 8}

Affiliations — collapse

Affiliations

¹ Department of Ophthalmology, and Laboratory of Optometry and Vision Sciences, West China Hospital, Sichuan University, Chengdu, Sichuan, China.

² McGill Vision Research Unit, Department of Ophthalmology & Visual Sciences, McGill University Montreal, Quebec, Canada.

³ xiwangoph@126.com.



motion extrapolation xi wang



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Abstract

Transmission and processing of sensory information in the visual system takes time. For motion perception, our brain can overcome this intrinsic neural delay through extrapolation mechanisms and accurately predict the current position of a continuously moving object. But how does the system

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 Corrective mechanisms of motion extrapolation.1 **Wang X**, Song Y, Liao M, Liu T, Liu L, Reynaud A.Cite *J Vis.* 2024 Mar 1;24(3):6. doi: 10.1167/jov.24.3.6.
PMID: 38512248 [Free PMC article.](#) **Cyclic esotropia with development of a high accommodative convergence to accommodation ratio after surgery for intermittent exotropia.**2 **Wang X**, Chen B, Liu L.Cite *Int Ophthalmol.* 2017 Aug;37(4):1069-1072. doi: 10.1007/s10792-016-0354-9. Epub 2016 Sep 15.
PMID: 27628586 **Bilateral Lateral Rectus Recession for the Treatment of Recurrent Exotropia after Bilateral Medial Rectus Resection.**3 **Wang X**, Chen X, Liu L.Cite *Ophthalmic Res.* 2019;61(2):120-124. doi: 10.1159/000494560. Epub 2018 Dec 6.
PMID: 30522110 **Comparison of bilateral medial rectus plication and resection for the treatment of convergence insufficiency-type intermittent exotropia.**4 **Wang X**, Zhang W, Chen R, Liao M, Liu L

- 13 Binocular function in the aging visual system: fusion, suppression, and stereoacuity.
Cite Song Y, **Wang X**, Liao M, Baldwin AS, Liu L.
Front Neurosci. 2024 Feb 28;18:1360619. doi: 10.3389/fnins.2024.1360619. eCollection 2024.
PMID: 38482141 [Free PMC article.](#)
- 14 Comparison Between Dichoptic and Monocular Training Protocols for Treating Monocular Amblyopia: A Meta-Analysis and Systematic Review.
Cite Tang AC, **Wang X**, Yang WJ, Guo JL, Li YL, Yang TY, An Z, Reynaud A, Liu LQ.
Ophthalmic Epidemiol. 2025 Mar 26:1-15. doi: 10.1080/09286586.2025.2483680. Online ahead of print.
PMID: 40138264 [Free article.](#) Review.
- 15 Balanced Binocular Inputs Support Superior Stereopsis.
Cite **Wang X**, Baldwin AS, Hess RF.
Invest Ophthalmol Vis Sci. 2021 Sep 2;62(12):10. doi: 10.1167/iovs.62.12.10.
PMID: 34515732 [Free PMC article.](#)
- 16 Global longitudinal strain at 3 months after therapy can predict late cardiotoxicity in breast cancer.
Cite Liu Z, Liu M, Zhong X, Qin Y, Liang T, Luo T, Yan X, Tang Z, **Wang X**, Liang S, Li Q, Ruan X, He W, Huang H.
Cancer Med. 2023 Jun;12(12):13374-13387. doi: 10.1002/cam4.6039. Epub 2023 May 15.
PMID: 37183826 [Free PMC article.](#)

Are all these papers have the same
Wang X person?

If not, which paper(s) has different
Wang X?

Types of resources for literature search

- Books (printed or electronic)
- Journals (printed or electronic)
- Research reports (printed or electronic)
- Government publications (printed or electronic)
- Internet (online resources)
- Intranet (offline resources)

Sources of information (types)

- There are primary, secondary, and tertiary types of information.
- Primary: includes reports of original research findings.
- Secondary: includes summarized writing of research findings.
- Tertiary: includes a summary of summarized writing of research findings.

Online searching

- Online literature search is an important skill in academic research, business, and everyday life (to be properly informed about the world).
 - E.g., For example, news (non-primary sources of information) in US only said hand washing is necessary to prevent from getting COVID-19 but it turns out wearing mask is more helpful based on original research findings.

Which tools do we often use to search online?



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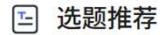
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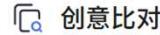
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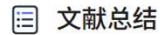
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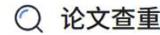
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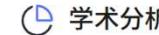
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Finding Pubmed (a literature database) with Baidu (search engine)

Search Engine

- It is a program that allows users to search and retrieve information from the vast amount of content available on the internet.
- It relies on algorithms to index and rank web pages based on relevance to a user's search query.
- It provides primary, secondary, tertiary and other sources (blogposts, personalized views) of information, not just research reports (primary/secondary).
 - Example: www.baidu.com
- Now, there are **academic search engines**, such as Google Scholar / Baidu Scholar / PubMed, providing a list of research articles based on search query.

When should search engines be used?

- For finding general information about a topic of interest
- When a topic is complex, involving different angles of perspectives
- To search for most recent information
- To conduct a single article search

Literature database

- It is an essential resource for accessing scholarly articles, literary works, and research publications across various fields.
- Users can quickly filter for relevant results.
- Example: PubMed (biomedical literature from life science journals)
 - <https://www.ncbi.nlm.nih.gov/pubmed>

When should literature database be used?

- To search for scholarly articles, research findings that could serve as primary sources of information.
- To search for review articles (secondary sources of information) that summarize findings about a specific topic across a specific period of time.

Important tools for online literature search

- Academic search engines:
 - **Baidu Scholar:** <https://xueshu.baidu.com/>
 - **Google Scholar:** <https://scholar.google.ca/>
- Literature databases:
 - **PubMed:** <https://pubmed.ncbi.nlm.nih.gov/>

Boolean methods can be applied in these databases/engines
to refine literature search

Extract suitable keywords during search

- Use nouns or objects as keywords
- Use 2-3 keywords in a search query
- Consider synonyms, related terms, or different expressions of the same term.
- For fixed phrases, use quotation marks (“monocular deprivation”) to improve search accuracy.

If search results are too few, expand search

- Use synonyms, related terms, or broader terms
 - Example: “visual perception” to “perception”
- Remove less important keywords or use more general terms.
- Use search engines’ auto-expansion features (e.g., related searches).
- Try multiple search engines.

If results are too broad or many, narrow search

- Use Boolean logic (**AND, OR, NOT**)
- Use phrase search (“exact phrases”)
- Field limiting can also help (e.g., search for papers published in 2020 or later)

Types of search operators

- A **search query** is a logical expression combining keywords with operators

Type	Example	Purpose
Phrase search	“social learning”	Exact phrase matching
Boolean operator	<i>creativity * education</i>	Combine/expand terms; AND / OR / NOT
Truncation search	*comput* → computer, computation, computing	Search variant word forms at beginning or end
Field searching	Abstract:(“binocular vision”)	Search by specific fields, such as Title, Keyword, Full Text, Abstract
Wildcard search	wom?n → woman, women	Search variant word forms anywhere in the keywords

Phrase search

- **Phrase search** performs a precise search for specific phrase or word combination, specified with quotation marks “...”.
- **Exercise:** Search for articles with the phrase *Ocular dominance plasticity* in Pubmed
- <https://pubmed.ncbi.nlm.nih.gov/>



"ocular dominance plasticity"

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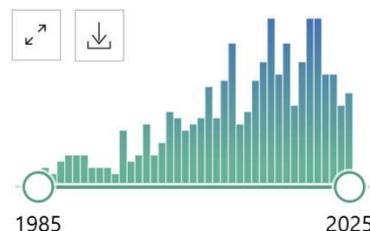
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RESULTS BY YEAR



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Ocular dominance plasticity: Molecular mechanisms revisited.

1 Kasamatsu T, Imamura K.

Cite J Comp Neurol. 2020 Dec 1;528(17):3039-3074. doi: 10.1002/cne.25001. Epub 2020 Sep 8.

PMID: 32737874 Review.

Ocular dominance plasticity (ODP) is a type of cortical plasticity operating in visual cortex of mammals that are endowed with binocular vision based on the competition-driven disparity. ...

Ocular Dominance Plasticity: A Mini-Review.

2 Min SH.

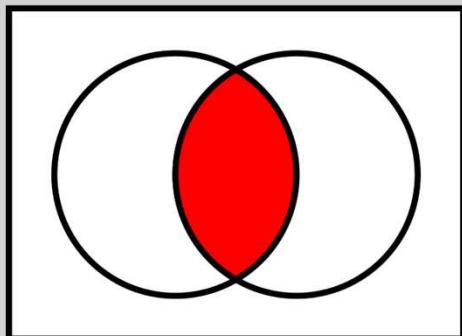
Cite Eye Brain. 2025 Jun 10;17:37-48. doi: 10.2147/EB.S532627. eCollection 2025.

PMID: 40519698 **Free PMC article.** Review.

Ocular dominance plasticity, the ability of the brain to change sensory eye balance, has traditionally been believed to be extremely limited in adult visual cortex. ...This review provides an overview of foundational studies on **ocular dominance** ...

Boolean operators

- **Boolean operators** include **AND**, **OR**, **NOT** to either shrink or widen a search.
- They should be typed in capital letters.

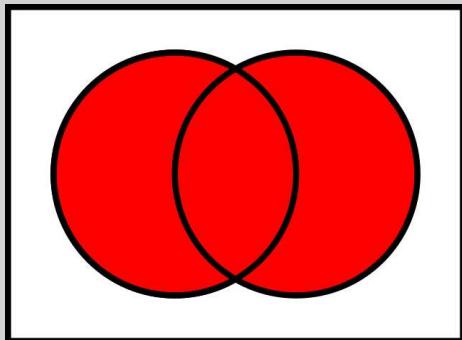


AND narrows or limits a search by requiring that the results contain both or all search terms/words

Example: **artificial intelligence AND academic performance**

Boolean operators

- **Boolean operators** include **AND**, **OR**, **NOT** to either shrink or widen a search.
- They should be typed in capital letters.

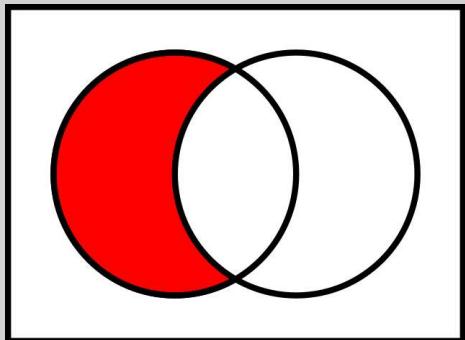


OR broadens or expands a search by requiring that the results contain either or any of the terms (useful for finding synonyms)

Example: **abnormal social behavior OR autism**

Boolean operators

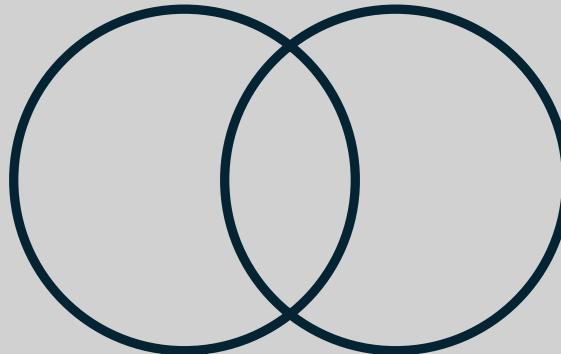
- **Boolean operators** include **AND**, **OR**, **NOT** to either shrink or widen a search.
- They should be typed in capital letters.



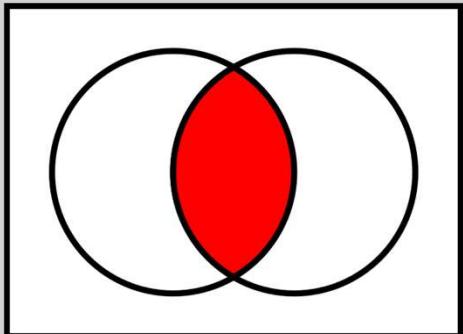
NOT narrows or limits a search by excluding sources with a specified search term

Example: **adult NOT children**

“neural plasticity” “perception”

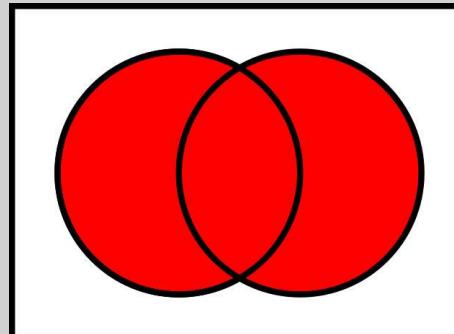


“neural plasticity”
AND
“perception”



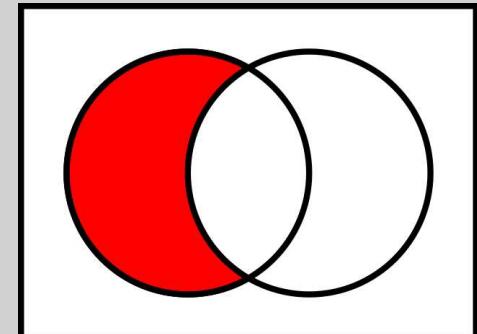
~ 100 articles

“neural plasticity”
OR
“perception”



~ 1000 articles

“neural plasticity”
NOT
“perception”



~ 400 articles



"perception" AND "neural plasticity"

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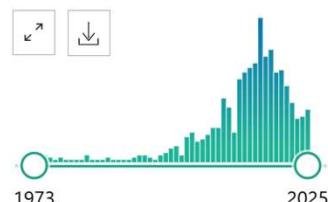
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602 results

« < Page 1 of 61 > »

RESULTS BY YEAR



PUBLICATION DATE

- 1 year
- 5 years
- 10 years
- Custom Range

TEXT AVAILABILITY

- Abstract
- Free full text
- Full text

ARTICLE ATTRIBUTE

- Pain Pathways and Nervous System Plasticity: Learning and Memory in Pain.**
1 McCarberg B, Peppin J.
Cite Pain Med. 2019 Dec 1;20(12):2421-2437. doi: 10.1093/pain/pnz017.
PMID: 30865778 Review.
Common neurotransmitters and similar mechanisms of **neural plasticity** (eg, central sensitization, long-term potentiation) suggest a mechanistic overlap between chronic pain and memory. ...
- Auditory Neural Plasticity in Tinnitus Mechanisms and Management.**
2 Wang K, Tang D, Ma J, Sun S.
Cite Neural Plast. 2020 Jul 1;2020:7438461. doi: 10.1155/2020/7438461. eCollection 2020.
PMID: 32684922 Free PMC article. Review.
Tinnitus, which is the **perception** of sound in the absence of a corresponding external acoustic stimulus, including change of hearing and **neural plasticity**, has become an increasingly important ailment affecting the daily life of a considerable proportion of t ...
- Distinct Neural Plasticity Enhancing Visual Perception.**
3 Kondat T, Tik N, Sharon H, Tavor I, Censor N.
Cite J Neurosci. 2024 Sep 4;44(36):e0301242024. doi: 10.1523/JNEUROSCI.0301-24.2024.
PMID: 39103221 Free PMC article.
Here we show that efficiently enhancing visual **perception** with minimal stimuli exposure recruits distinct neural mechanisms relative to standard repetition-based learning. ...The results suggest that efficiently enhancing visual **perception** with minimal stimuli expos ...



"perception" OR "neural plasticity"

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482,007 results

« < Page 1 of 48,201 > »

RESULTS BY YEAR



1829

2026

PUBLICATION DATE

- 1 year
- 5 years
- 10 years
- Custom Range

TEXT AVAILABILITY

- Abstract
- Free full text
- Full text

ARTICLE ATTRIBUTE

Distinct Neural Plasticity Enhancing Visual Perception.

1 Kondat T, Tik N, Sharon H, Tavor I, Censor N.
Cite J Neurosci. 2024 Sep 4;44(36):e0301242024. doi: 10.1523/JNEUROSCI.0301-24.2024.
PMID: 39103221 [Free PMC article.](#)

Here we show that efficiently enhancing visual **perception** with minimal stimuli exposure recruits distinct neural mechanisms relative to standard repetition-based learning. ...The results suggest that efficiently enhancing visual **perception** with minimal stimuli expos ...

Pain Pathways and Nervous System Plasticity: Learning and Memory in Pain.

2 McCarberg B, Peppin J.
Cite Pain Med. 2019 Dec 1;20(12):2421-2437. doi: 10.1093/pain/pnz017.
PMID: 30865778 [Review.](#)

Common neurotransmitters and similar mechanisms of **neural plasticity** (eg, central sensitization, long-term potentiation) suggest a mechanistic overlap between chronic pain and memory. ...

Neural plasticity and its initiating conditions in tinnitus.

3 Roberts LE.
Cite HNO. 2018 Mar;66(3):172-178. doi: 10.1007/s00106-017-0449-2.
PMID: 29234817 [Review.](#) English.
BACKGROUND AND OBJECTIVE: Deafferentation caused by cochlear pathology (which can be hidden from the audiogram) activates forms of **neural plasticity** in auditory pathways, generating tinnitus and its associated conditions including hyperacusis. ...Another tinnitus co ...



"neural plasticity" NOT "perception"

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6,916 results

Page 1 of 692

RESULTS BY YEAR



PUBLICATION DATE

- 1 year
- 5 years
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- Custom Range

TEXT AVAILABILITY

- Abstract
- Free full text
- Full text

ARTICLE ATTRIBUTE

- Associated data

ARTICLE TYPE

- Principles of experience-dependent neural plasticity: implications for rehabilitation after brain damage.**
1 Kleim JA, Jones TA.
J Speech Lang Hear Res. 2008 Feb;51(1):S225-39. doi: 10.1044/1092-4388(2008/018).
PMID: 18230848
RESULTS: Neural plasticity is believed to be the basis for both learning in the intact brain and relearning in the damaged brain that occurs through physical rehabilitation. ...The qualities and constraints of experience-dependent neural plasticity are ...
- What Is Neural Plasticity?**
2 von Bernhardi R, Bernhardi LE, Eugenín J.
Cite Adv Exp Med Biol. 2017;1015:1-15. doi: 10.1007/978-3-319-62817-2_1.
PMID: 29080018 Review.
"Neural plasticity" refers to the capacity of the nervous system to modify itself, functionally and structurally, in response to experience and injury. ...The article also reviews the seminal proposals developed over the years that have driven experiments and strong ...
- The Role of Neural Plasticity in Depression: From Hippocampus to Prefrontal Cortex.**
3 Liu W, Ge T, Leng Y, Pan Z, Fan J, Yang W, Cui R.
Cite Neural Plast. 2017;2017:6871089. doi: 10.1155/2017/6871089. Epub 2017 Jan 26.
PMID: 28246558 Free PMC article. Review.
Neural plasticity, a fundamental mechanism of neuronal adaptation, is disrupted in depression. ...Antidepressant treatments have also been found to exert their antidepressant effects through regulatory effects on neural plasticity. However, the detaile ...

How can we use Boolean operators with keywords to find this paper?

Facilitation and interference are asymmetric in holistic face processing

Haiyang Jin^{1,2}  · Luyan Ji³ · Olivia S. Cheung^{2,4} · William G. Hayward⁵

Accepted: 13 February 2024 / Published online: 4 March 2024
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Abstract

A hallmark of face specificity is holistic processing. It is typically measured by paradigms such as the part–whole and composite tasks. However, these tasks show little evidence for common variance, so a comprehensive account of holistic processing remains elusive. One aspect that varies between tasks is whether they measure *facilitation* or *interference* from holistic processing. In this study, we examined facilitation and interference in a single paradigm to determine the way in which they manifest during a face perception task. Using congruent and incongruent trials in the complete composite face task, we found that these two aspects are asymmetrically influenced by the location and cueing probabilities of the target facial half, suggesting that they may operate somewhat independently. We argue that distinguishing facilitation and interference has the potential to disentangle mixed findings from different popular paradigms measuring holistic processing in one unified framework.

Keywords Face perception · Holistic processing · Composite face task · Facilitation · Interference

Please think of some combinations on your own



"facilitation" AND "interference" AND "holistic face processing"



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2 results

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1

of 1

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TEXT AVAILABILITY

- Abstract
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- Full text

ARTICLE ATTRIBUTE



Facilitation and interference are asymmetric in holistic face processing.

1 Jin H, Ji L, Cheung OS, Hayward WG.

Cite Psychon Bull Rev. 2024 Oct;31(5):2214-2225. doi: 10.3758/s13423-024-02481-9. Epub 2024 Mar 4.

PMID: 38438710 [Free PMC article.](#)

One aspect that varies between tasks is whether they measure **facilitation** or **interference** from holistic processing. In this study, we examined facilitation and interference in a single paradigm to determine

"facilitation" AND "interference" AND "holistic face processing"

2 [part-whole and composite effects.](#)

Cite Jin H, Hayward WG, Cheung OS.

J Vis. 2024 Oct 3;24(11):13. doi: 10.1167/jov.24.11.13.

PMID: 39417756 [Free PMC article.](#)

Although holistic effects are readily observed using these tasks, the lack of correlations among these



"facilitation" AND "interference" NOT "ensemble processing"

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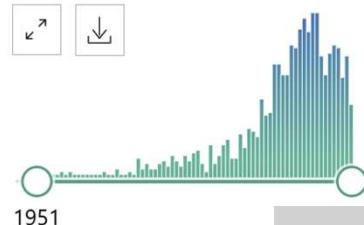
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1,004 results

« < Page 1 of 101 > »

RESULTS BY YEAR



PUBLICATION DATE

- 1 year
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TEXT AVAILABILITY

Facilitation and **interference** effects of the multisensory context on learning: a systematic review and meta-analysis.

Cite Li J, Deng SW.

Psychol Res. 2023 Jul;87(5):1334-1352. doi: 10.1007/s00426-022-01733-4. Epub 2022 Sep 15.

PMID: 36107248

In this work, we addressed this issue with a systematic review and meta-analysis and examined the multisensory **facilitation** and **interference** of learning. The present study reviewed the literature on

"facilitation" AND "interference" NOT "ensemble processing"

Cite JIN H, JI L, Cheung OS, Hayward VWG.

Psychon Bull Rev. 2024 Oct;31(5):2214-2225. doi: 10.3758/s13423-024-02481-9. Epub 2024 Mar 4.

PMID: 38438710 [Free PMC article.](#)

One aspect that varies between tasks is whether they measure **facilitation** or **interference** from holistic processing. In this study, we examined **facilitation** and **interference** in a single paradigm to determine the way in which they manifest during a face ...



"holistic face processing" OR "asymmetric" NOT "ensemble processing"

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116,877 results

« < Page 1 of 11,688 > »

RESULTS BY YEAR



PUBLICATION DATE

- 1 year
- 5 years
- 10 years

Facilitation and interference are **asymmetric** in **holistic face processing**.

1 Jin H, Ji L, Cheung OS, Hayward WG.

Cite Psychon Bull Rev. 2024 Oct;31(5):2214-2225. doi: 10.3758/s13423-024-02481-9. Epub 2024 Mar 4.

PMID: 38438710 [Free PMC article](#).

**"holistic face processing" OR
"asymmetric" NOT "ensemble processing"**

We provide evidence of sleeper effects for three aspects of vision, based on our research with children who were deprived of early visual input by congenital cataracts: contrast sensitivity for mid and high spatial frequencies, **holistic face processing**, and t ...

Exercise 4: Boolean Operators

- In elderly populations (60+) in Asia, can having a normal job be more beneficial in slowing the rate of memory loss compared to daily exercise, such as cycling or running?
1. Identify PICO (population, intervention, comparison, outcome)
 2. Use AND/OR/NOT for each of PICO to refine the search result.

Exercise 5: Boolean Operators

- A developmental psychologist wants to know if children with Autism Spectrum Disorder (ASD) show a different pattern of face scanning (e.g., looking less at the eyes) compared to typically developing children when viewing emotional faces.
1. Identify PICO (population, intervention, comparison, outcome)
 2. Use AND/OR/NOT for each of PICO to refine the search result.

Truncation search

- **Truncation search** can find words that are related with common roots by including symbols, such as *, ?.
- **Truncation** means to **cut**.



- Examples of **prefix truncation** :
 - universit* → university, universities
 - child* → child, child's, children

Exercise 6: Truncation

- **Scenario:** You are researching the psychological effects of bullying on young people.
- Use truncation to create a search that captures all these related terms in one search box:
 - Bully
 - Bullies
 - Bullying
 - bullied

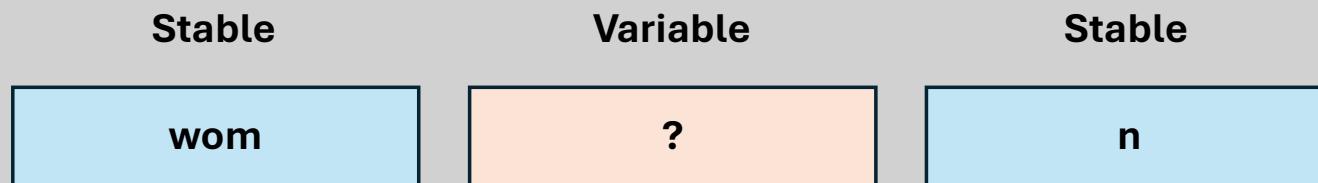
Exercise 6: Truncation

- **Scenario:** You are researching the psychological effects of bullying on young people.
- Use truncation to create a search that captures all these related terms in one search box:
 - Bully
 - Bullies
 - Bullying
 - bullied

The root word is bull. Applying truncation gives: bull*

Wildcard search

- **Wildcard search**, which is similar to truncation search, can put * or ? in the middle of the word.



- Examples of **wildcard search**:

- wom?n → woman, women
- labo*r → labor, labour

Exercise 7: Wildcard Search

- **Scenario:** You need to find literature on therapy and color, but you want to account for both American and British spelling.
- Use a wildcard to search for both spellings of these words:
 - Color (American) and colour (British)
 - Behavior (American) and behaviour (British)

Exercise 7: Wildcard Search

- **Scenario:** You need to find literature on therapy and color, but you want to account for both American and British spelling.
- Use a wildcard to search for both spellings of these words:
 - Color (American) and colour (British)
 - Behavior (American) and behaviour (British)

col?r finds color and colour

behavi?r finds behavior and behaviour