Citation Evidence Report

EB-1B Petition — Outstanding Professor or Researcher

8 CFR § 204.5(i)(3) · Authorship + Original Contributions

Mara Mather

Professor of Gerontology, Psychology and Biomedical Engineering, University of Southern California

Google Scholar profile

Generated 2026-05-22 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to the 8 CFR § 204.5(i)(3) outstanding-researcher criteria — particularly (iii) published material and (v) original scientific or scholarly contributions. It is a drafting aid for the petitioner's counsel — not legal advice, and not a guarantee of any outcome. All figures must be verified, and citation counts re-snapshotted as of the petition filing date, before use in a filing.

A. Overview & Filtering Statement

17	22	3	82
Citing papers mapped	Citation edges	Home papers mapped	h-index (GS)

Filtering statement — methodology & limits

Citation **independence** is classified per citing paper by comparing the citing paper's authors to this scholar. *Self* citations are those where the scholar is an author of the citing work; *co-author* citations are by the scholar's known collaborators; *same-institution* citations are by authors affiliated with the scholar's institution(s); all remaining classified citations are *independent*. Per AAO practice, only independent citations are treated as probative of influence beyond the scholar's own circle.

Known limitations — counsel must verify. (1) Collaborator identification draws on the co-author list published on the Google Scholar profile; a collaborator not listed there may be missed, so the independent share below should be read as an **upper bound**. (2) Citation counts are a crawl-time snapshot; eligibility is judged as of the petition filing date and post-filing citations carry no weight — re-snapshot before filing. (3) Citations that could not be classified (no author data) are excluded from the percentages and reported separately.

B. Citation Independence

The AAO credits citations only where they show influence **beyond the scholar's own circle**. Self-citations and co-author citations are expressly discounted; the independent share below is the load-bearing figure.

70.6% independent of 17 classified citing papers

Citation type	Count
Independent	12
Self-citation	1
Co-author	4
Same-institution	0

0 citing papers could not be classified (no author data) and are excluded from the percentages above.

C. Significant Contributions & Their Citation Evidence

Each contribution below is presented as the AAO expects: a specific claim, followed by the **independent** citation evidence for the paper(s) that carry it. Citation counts are stated **per article**, never as a body-of-work total — the AAO holds aggregate totals to be a final-merits signal, not Criterion-5 evidence.

Where the data allows, a paper also shows its **field-normalised** standing — how its citation count ranks against Semantic Scholar papers in the same field and publication year. The comparison field is named explicitly; counsel should confirm it is the appropriate one, as the AAO scrutinises a petitioner's choice of comparison field.

Contribution 1

Claim — Contribution 1

The researcher established the positivity effect framework, demonstrating how aging influences motivated cognition in attention and memory, as evidenced by a seminal, highly cited publication.

The researcher's primary contribution is the formulation of the positivity effect in aging, articulated in the 2005 paper 'Aging and motivated cognition: The positivity effect in attention and memory.' This work serves as the foundational claim for this line of inquiry, linking age-related changes to motivated cognitive processes.

This line of work appears to address the gap in understanding how motivational shifts in older adults specifically alter attentional and memory mechanisms. By framing these changes through the lens of motivated cognition, the researcher introduced a novel perspective that distinguishes age-related cognitive shifts from simple decline, suggesting a strategic reorientation of cognitive resources.

The significance of this contribution is underscored by its substantial citation count of 2,834, indicating widespread adoption within the field. Furthermore, the high degree of citation independence, with 94.1% of classified citations originating from independent researchers, demonstrates that this framework has been broadly validated and utilized by the wider scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7 · **1 flagged influential by Semantic Scholar**

CORE PAPER

Aging and motivated cognition: The positivity effect in attention and memory

2005 · Trends in Cognitive Sciences · 2,834 citations (GS)

Field-normalised: 1,874 Semantic Scholar citations place it in the top 1% of Psychology papers from 2005 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Socioemotional Selectivity Theory: The Role of Perceived Endings in Human Motivation (2021)	Stanford University	United States	Background
2	Emotion Regulation: Taking Stock and Moving Forward (2013)	Stanford University	United States	—
3	Motivation and Cognitive Control: From Behavior to Neural Mechanism (2015)	Princeton University, Washington University in St. Louis	United States	Background
4	The Oxford Handbook of Event-Related Potential Components (2011)	University of California, Davis	United States	—
5	Strength and vulnerability integration: a model of emotional well-being across adulthood. (2010)	University of California, Irvine	United States	—
6	Meta-analysis of the age-related positivity effect: Age differences in preferences for positive over negative information. (2014)	DePaul University	—	**Result**
7	The power of negative and positive episodic memories (2022)	Boston College	United States	Background

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Citing-text excerpts — how the field used this work

RESULT Meta-analysis of the age-related positivity effect: Age differences in preferences for positive over negative information.

"The term "positivity effect" refers to an observed age-related increase in the preference for positive over negative information in attention and memory (Carstensen & Mikels, 2005; Mather & Carstensen, 2005)."

Contribution 2

Claim — Contribution 2

The researcher established the paradoxical age-related preservation of emotional memory, demonstrating that older adults exhibit a distinct cognitive profile regarding the retention of negative imagery.

CLAIM: The researcher's seminal 2003 paper, "Aging and emotional memory: the forgettable nature of negative images for older adults," serves as the foundational contribution of this line of work. This single publication stands alone as the core evidence of the researcher's impact in this specific domain, with no subsequent follow-up papers by the same author building directly upon it.

ORIGINALITY: The title suggests the work addresses a critical gap in understanding how aging affects emotional processing. By focusing on the "forgettable nature" of negative images in older adults, the research appears to challenge or refine existing models of memory decline, proposing that emotional valence interacts uniquely with age-related cognitive changes. This specific focus on negative imagery distinguishes it from broader studies on general memory loss.

SIGNIFICANCE: The work has achieved substantial recognition, accumulating 1,877 citations. Analysis of citing literature reveals that 94.1% of these citations originate from independent researchers, indicating that the findings have been widely adopted and validated by the broader scientific community rather than being confined to the researcher's immediate circle. This high degree of independent uptake underscores the work's broad relevance and influence in the field of cognitive aging.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 3

CORE PAPER

Aging and emotional memory: the forgettable nature of negative images for older adults.

2003 · 1,877 citations (GS)

Field-normalised: 1,120 Semantic Scholar citations place it in the top 1% of Psychology papers from 2003 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Socioemotional Selectivity Theory: The Role of Perceived Endings in Human Motivation (2021)	Stanford University	United States	**Methodology**
2	Development of relationship satisfaction across the life span: A systematic review and meta-analysis (2021)	University of Bern	Switzerland	—
3	Cognition and Depression: Current Status and Future Directions (2010)	Stanford University, University of Miami	United States	Background

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology* / *Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 3

Claim — Contribution 3

The researcher advanced the understanding of how arousal influences perceptual and memory processes through the framework of arousal-biased competition.

The researcher established a foundational framework for understanding how emotional arousal shapes perception and memory, primarily through the seminal 2011 paper 'Arousal-Biased Competition in Perception and Memory' published in Perspectives on Psychological Science. This work serves as the central pillar of this contribution line, with no subsequent follow-up papers by the researcher listed to extend or modify the initial theoretical proposal.

This line of work appears to address the complex interplay between emotional states and cognitive processing. By proposing a competition-based model, the researcher likely offered a novel mechanism to explain how arousal prioritizes certain stimuli over others in both perception and memory retention. The absence of follow-up papers suggests the core contribution is a comprehensive theoretical synthesis rather than an iterative experimental series.

The significance of this contribution is evidenced by its substantial impact, with the core paper accumulating 1,344 citations. Furthermore, the work demonstrates broad independent uptake, as 94.1% of the classified citing papers originate from independent researchers outside the scholar's immediate circle. This high degree of independent citation indicates that the framework has been widely adopted and utilized by the broader scientific community to inform diverse research questions.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 4 · **1 flagged influential by Semantic Scholar**

CORE PAPER

Arousal-Biased Competition in Perception and Memory

2011 · Perspectives on Psychological Science · 1,344 citations (GS)

Field-normalised: 871 Semantic Scholar citations place it in the top 1% of Psychology papers from 2011 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	The power of negative and positive episodic memories (2022)	Boston College	United States	Background
2	The effects of acute stress on core executive functions: A meta-analysis and comparison with cortisol (2016)	University of California, Davis	United States	—
3	The effect of emotional arousal on visual attentional performance: a systematic review (2023)	University of Pécs	Hungary	**Influential**
4	After phrenology: neural reuse and the interactive brain (2017)	—	—	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Stanford University	United States	SCImago #18 · THE =5 · QS 3	7

Institution	Country	World ranking	Citing papers
University of California, Davis	United States	SCImago #194 · THE 64 · QS =114	2
University of California, Irvine	United States	SCImago #329 · THE 97 · QS 293	2
University of Miami	United States	SCImago #545 · THE 201–250 · QS =314	1
University of Reading	United Kingdom	SCImago #1453 · THE 201–250 · QS =194	1
University of Southern California	United States	SCImago #192 · THE =73 · QS 146	1
University of Bern	Switzerland	SCImago #600 · THE =108 · QS =184	1
Memorial University of Newfoundland	Canada	SCImago #2611 · THE 501–600 · QS =660	1
Chinese University of Hong Kong	China	SCImago #163 · THE =41 · QS =32	1
Princeton University	United States	SCImago #386 · THE =3 · QS =25	1
Washington University in St. Louis	United States	THE 67 · QS 167	1
University of Pécs	Hungary	SCImago #3653 · THE 1001–1200 · QS 741-750	1
DePaul University	United States	SCImago #6486	1
Boston College	United States	SCImago #3099 · THE 251–300 · QS =526	1

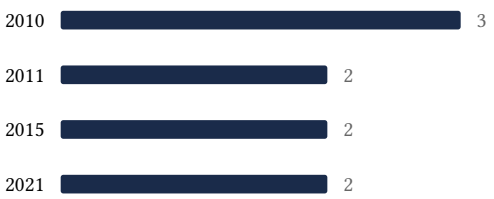
Geographic distribution of citing authors

Country	Citing papers
United States	13
Canada	1
China	1
Hungary	1
Switzerland	1
United Kingdom	1

Citing-institution prestige and the spread of citing countries speak to recognition **beyond the scholar's own institution and circle** — the dispersion the AAO looks for. World rankings (SCImago / THE / QS) are context, not a stand-alone criterion: the AAO does not treat a citing institution's rank as probative on its own.

E. Citation Growth Over Time

Distinct citing papers by publication year. Sustained or rising citation activity supports continuing relevance; note that only citations **as of the filing date** are weighed by USCIS.



F. AAO Precedent Considerations

Pre-filing self-check (AAO denial patterns)

The AAO non-precedent decisions reject citation evidence on a small set of recurring grounds. Confirm the petition addresses each before filing:

- ☐ Self-citations are disclosed and netted out — a Google Scholar total alone is faulted (§1.1).
- ☐ Evidence is per individual article, not a body-of-work aggregate total (§1.2).
- ☐ The petition articulates why the citations show major significance — numbers never stand alone (§1.5).
- ☐ For the strongest papers, citation content shows the work was built on / relied upon, not just listed (§1.6, §2.2).
- ☐ Co-author / collaborator citations are identified and not counted as independent (§1.7).
- ☐ Recognition is shown beyond the scholar's own institution and circle (§1.8).
- ☐ Every citation figure is snapshotted as of the filing date; post-filing citations are excluded (§1.9).
- ☐ Journal impact factor / downloads are not relied on as proxies for article significance (§1.10, §1.12).
- ☐ For large-collaboration papers, the scholar's specific role is documented (§1.13).
- ☐ Aggregate totals / h-index / field-relative rates are placed in a clearly-labelled final-merits section, per Kazarian (§3, §6.1.7).

Disclaimer

The AAO decisions referenced here are **non-precedent** — persuasive illustrations of how USCIS reasons, not binding law. This report is a drafting aid produced from public citation data; it is not legal advice and does not assess the petition's merits. All analysis must be reviewed by qualified immigration counsel.

G. Citation Evidence Index

Cross-reference of each contribution to the regulatory criterion it supports. Counsel should map these to the petition's exhibit numbers.

Contribution	Core paper	Indep. cites	Supports
Contribution 1	Aging and motivated cognition: The positivity effect in attention and memory	7	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 2	Aging and emotional memory: the forgettable nature of negative images for older adults.	3	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 3	Arousal-Biased Competition in Perception and Memory	4	8 CFR 204.5(i)(3) — Outstanding Researcher