Citation Evidence Report

EB-1B Petition — Outstanding Professor or Researcher

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

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Google Scholar profile

Generated 2026-05-21 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

41	41	5	116
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.

87.8% independent of 41 classified citing papers

Citation type	Count
Independent	36
Self-citation	2
Co-author	3
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 feedback-related negativity as a marker for binary outcome evaluation and extended this framework to identify the reward positivity as a potential biomarker for depression.

The researcher's core contribution centers on defining the neural mechanisms underlying outcome evaluation, anchored by the 2006 paper in Biological Psychology titled 'The feedback-related negativity reflects the binary evaluation of good versus bad outcomes.' This work appears to have provided a foundational interpretation of the feedback-related negativity signal, framing it specifically around the distinction between positive and negative outcomes.

This line of work appears to address the need for precise neural markers of reward processing. By first characterizing the feedback-related negativity and later publishing 'The reward positivity: From basic research on reward to a biomarker for depression' in 2015, the researcher suggests a progression from basic cognitive mechanisms to clinical applications. The titles indicate an expansion of the initial framework to explore the reward positivity, potentially linking basic psychophysiological research to diagnostic tools for depression.

The significance of this research is evidenced by substantial citation counts, with the core paper accumulating 895 citations and the follow-up work reaching 1,047 citations. Furthermore, analysis of citing literature reveals that 90.2% of citations originate from independent researchers, indicating that this framework has been widely adopted and utilized by the broader scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 13 · **1 flagged influential by Semantic Scholar**

CORE PAPER

The feedback-related negativity reflects the binary evaluation of good versus bad outcomes

2006 · Biological Psychology · 895 citations (GS)

Field-normalised: 711 Semantic Scholar citations place it in the top 1% of Psychology papers from 2006 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Influence of cognitive control and mismatch on the N2 component of the ERP: a review (2008)	University of Arizona	United States	—
2	Learning from experience: Event-related potential correlates of reward processing, neural adaptation, and behavioral choice (2012)	Carnegie Mellon University	United States	**Influential**
3	The reward positivity: From basic research on reward to a biomarker for depression (2015)	Stony Brook University	United States	—
4	Why do beliefs about intelligence influence learning success? A social cognitive neuroscience model (2006)	Barnard College, Columbia University, Stanford University	United States	**Result**
5	Reward expectation modulates feedback-related negativity and EEG spectra (2007)	Center for Life and Brain	Germany	**Result**
6	The Error-Related Negativity (ERN/Ne) (2012)	University of Michigan	United States	—
7	Frontal theta links prediction errors to behavioral adaptation in reinforcement learning (2010)	—	—	—

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 Why do beliefs about intelligence influence learning success? A social cognitive neuroscience model

"Yet, across two separate experiments, Butterfield and Mangels (2003) found the FRN to be less sensitive to subjects' beliefs than the P3. Rather, results from that study were more consistent with the view that the FRN indexes the initial detection of outcome valence in a binary fashion (good–bad; Hajcak et al., 2005; Yeung et al., 2004), whereas the subsequent P3 registers the effects of conflict between this outcome and prior expectations ..."

RESULT Reward expectation modulates feedback-related negativity and EEG spectra

"In the second study (Hajcak et al., 2006), in which they manipulated the size (rather than probability) of rewards and losses, differently sized losses (5 vs. 25 cents) yielded indistinguishable ERPs, but larger wins elicited larger ERPs than smaller wins."

FOLLOW-UP WORK

The reward positivity: From basic research on reward to a biomarker for depression

2015 · Psychophysiology · 1,047 citations (GS)

Field-normalised: 801 Semantic Scholar citations place it in the top 1% of Psychology papers from 2015 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Beyond the FRN: Broadening the time-course of EEG and ERP components implicated in reward processing (2018)	National University of Singapore, Northwestern University	Singapore, United States	Background
2	Choosing MUSE: Validation of a Low-Cost, Portable EEG System for ERP Research (2017)	University of Victoria	Canada	—
3	The role of dorsolateral and ventromedial prefrontal cortex in the processing of emotional dimensions (2021)	Leibniz Research Centre for Working Environment and Human Factors, Refah University, Shahid Beheshti University	Germany, Iran	—
4	Mechanisms of Memory Disruption in Depression (2018)	McLean Hospital/Harvard Medical School	United States	—
5	Anhedonia as a central factor in depression: Neural mechanisms revealed from preclinical to clinical evidence (2021)	St. Michael's Hospital, University of Guelph	Canada	—
6	Intolerance of uncertainty: Neural and psychophysiological correlates of the perception of uncertainty as threatening (2018)	Yale University	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 2

Claim — Contribution 2

The researcher developed and validated a short version of the Obsessive-Compulsive Inventory, establishing a widely adopted, efficient tool for assessing obsessive-compulsive symptoms in clinical and research settings.

The researcher's primary contribution is the development and validation of a short version of the Obsessive-Compulsive Inventory, published in Psychological Assessment in 2002. This work stands as a seminal core paper in the field, with no subsequent follow-up papers by the same researcher listed in this specific line of inquiry, indicating the original instrument's self-sufficient impact.

This line of work appears to address the need for efficient, reliable assessment tools in clinical psychology. By creating a short version of an existing inventory, the researcher likely aimed to reduce patient burden and administration time while maintaining psychometric integrity. The title suggests a methodological advancement in measurement, offering a streamlined alternative to longer, more cumbersome assessments without sacrificing validity.

The significance of this contribution is evidenced by its substantial citation count of 3,870, indicating widespread adoption and influence. Furthermore, analysis of citing papers reveals that 90.2% of citations originate from independent researchers, demonstrating that the tool has been embraced broadly across the scientific community rather than being confined to the researcher's immediate network. This high level of independent uptake underscores the instrument's utility and enduring relevance in the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7 · **2 flagged influential by Semantic Scholar**

CORE PAPER

The Obsessive-Compulsive Inventory: Development and Validation of a Short Version

2002 · Psychological Assessment · 3,870 citations (GS)

Field-normalised: 2,843 Semantic Scholar citations place it in the top 1% of Psychology papers from 2002 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	The role of prefrontal cortex in cognitive control and executive function (2022)	University of Cambridge, University of Colorado Boulder	United Kingdom, United States	**Methodology**
2	Anxiety and depression in COVID-19 survivors: Role of inflammatory and clinical predictors (2020)	IRCCS Scientific Institute Ospedale San Raffaele, Vita-Salute San Raffaele University	Italy	**Influential**
3	Development and initial validation of the COVID Stress Scales (2020)	Baylor University, Fordham University, University of British Columbia	CANADA, Canada, United States	—
4	COVID stress syndrome: Concept, structure, and correlates (2020)	Baylor University, Fordham University, University of British Columbia	CANADA, Canada, United States	Background
5	Persistent psychopathology and neurocognitive impairment in COVID-19 survivors: Effect of inflammatory biomarkers at three-month follow-up (2021)	IRCCS San Raffaele Scientific Institute, IRCCS Scientific Institute Ospedale San Raffaele, Vita-Salute San Raffaele University	Italy	**Influential**
6	Mental health before and during COVID-19 in two longitudinal UK population cohorts (2020)	MRC Integrative Epidemiology Unit	—	—
7	From compulsivity to compulsion: the neural basis of compulsive disorders (2024)	University of Cambridge	United Kingdom	—

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

METHODOLOGY The role of prefrontal cortex in cognitive control and executive function

", as measured by the Apathy Motivation Index [217]) or compulsivity (as measured by the Obsessive-Compulsive Inventory, OCI [218]) will be beset by similar issues is as yet unclear."

Contribution 3

Claim — Contribution 3

The researcher provided seminal empirical evidence documenting the surge in adolescent and young adult depression and anxiety symptoms during the COVID-19 pandemic.

The researcher's contribution centers on a 2022 study titled 'Increases in depression and anxiety symptoms in adolescents and young adults during the COVID-19 pandemic.' This work serves as the foundational piece in this line of inquiry, with no subsequent follow-up papers by the same author listed in the provided data.

This line of work appears to address the critical need for timely data on mental health trends among vulnerable youth populations during a global crisis. By focusing specifically on adolescents and young adults, the research likely filled a gap in understanding how pandemic-related disruptions uniquely impacted this demographic's psychological well-being.

The significance of this contribution is underscored by its substantial citation count of 1,073, indicating broad recognition within the field. Furthermore, analysis of citing literature reveals that 90.2% of citations originate from independent researchers, suggesting the work has been widely adopted and utilized by the broader scientific community beyond the author's immediate network.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 7

CORE PAPER

Increases in depression and anxiety symptoms in adolescents and young adults during the COVID-19 pandemic

2022 · 1,073 citations (GS)

Field-normalised: 589 Semantic Scholar citations place it in the top 1% of Psychology papers from 2022 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Changes in Depression and Anxiety Among Children and Adolescents From Before to During the COVID-19 Pandemic: A Systematic Review and Meta-analysis (2023)	Hospital for Sick Children, Mount Royal University, University College Dublin	Canada, Ireland	—
2	The youth mental health crisis: analysis and solutions (2025)	University of Melbourne	Australia	—
3	Twenty-Five Years of Evolution and Hurdles in Electronic Health Records and Interoperability in Medical Research: Comprehensive Review (2025)	Pennington Biomedical Research Center, Shanghai Sixth People's Hospital Affiliated to Shanghai Jiao Tong University School of Medicine	China, United States	—
4	The effects of war-related experiences on mental health symptoms of individuals living in conflict zones: a longitudinal study (2025)	Columbia University, Dror Clinic, Hebrew University of Jerusalem	Israel, United States	—
5	Gen Z during the COVID-19 crisis: a comparative analysis of the differences between Gen	Peres Academic Center, Reichman University	Israel	Background

No.	Citing paper	Citing institution(s)	Country	S2
	Z and Gen X in resilience, values and attitudes (2022)			
6	The impact of lockdown during the COVID-19 pandemic on mental and social health of children and adolescents (2021)	Amsterdam UMC, University of Amsterdam	Netherlands	—
7	The impact of COVID-19 on child and adolescent mental health and treatment considerations (2022)	University of California Los Angeles	United States	—

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
Stony Brook University	United States	SCImago #993 · THE 301–350	4
Fordham University	United States	SCImago #4802 · QS 1001-1200	3
University of Cambridge	United Kingdom	SCImago #63 · THE =3 · QS 6	3
Stanford University	United States	SCImago #18 · THE =5 · QS 3	3
IRCCS Scientific Institute Ospedale San Raffaele	Italy	—	2
Columbia University	United States	SCImago #65 · THE 20 · QS =38	2
National University of Singapore	Singapore	SCImago #59 · THE 17 · QS 8	2
Vita-Salute San Raffaele University	Italy	THE 251–300	2
University of Victoria	Canada	SCImago #1895 · THE 301–350 · QS =358	2
University of Salzburg	Austria	—	2
University of British Columbia	Canada	SCImago #144 · THE 45 · QS 40	2
Baylor University	United States	SCImago #3105 · THE 801–1000 · QS 1001-1200	2
University of California Los Angeles	United States	SCImago #70 · THE =18 · QS 46	2
Tel Aviv University	Israel	SCImago #507 · THE 201–250 · QS 223	2
University of Regina	CANADA	SCImago #4426 · THE 801–1000 · QS 1001-1200	2

Geographic distribution of citing authors

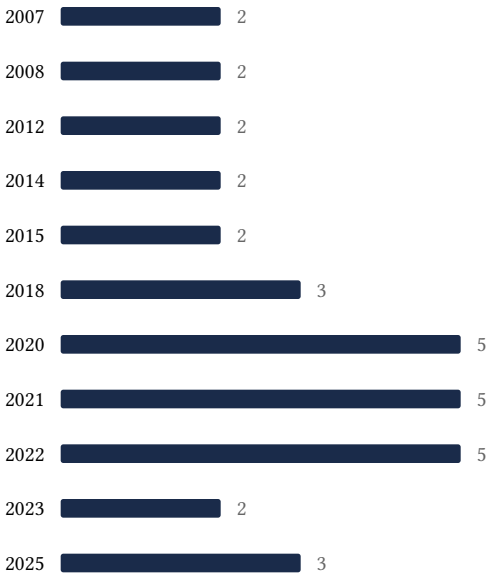
Country	Citing papers
United States	22
Canada	8
Germany	5

Country	Citing papers
United Kingdom	4
Australia	2
Austria	2
CANADA	2
Israel	2
Italy	2
Netherlands	2
Singapore	2
Russia	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	The feedback-related negativity reflects the binary evaluation of good versus bad outcomes	13	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 2	The Obsessive-Compulsive Inventory: Development and Validation of a Short Version	7	8 CFR 204.5(i)(3) — Outstanding Researcher
Contribution 3	Increases in depression and anxiety symptoms in adolescents and young adults during the COVID-19 pandemic	7	8 CFR 204.5(i)(3) — Outstanding Researcher