

Essential Science Conversations

The Future of Peer Review

February 7, 2023

Shandol Hoover: Hi everyone, and welcome. Please let us know where you are from by saying hello in the chat. I'm Shandol Hoover, APA Science Programs Officer. This program is part of an APA series called Essential Science Conversations where panelists and audience members can engage in an open dialogue about emerging topics and psychological science. Before we get started, I want to share a few quick announcements. First, many thanks to those of you who submitted questions for today's program when you registered.

We'll try to get to as many of those questions as possible. You can also ask a question as the program is taking place in real-time. There's a Q&A feature on the dashboard. Please enter your questions there. We will be monitoring those questions throughout the program. Also, this program is being recorded, so once it ends, everyone who registered will receive an e-mail with a link to the recording in about two weeks after this webinar concludes. Let's begin. I'm pleased to introduce Dr. Mitch Prinstein, APA's Chief Science Officer.

Dr. Mitch Prinstein: Hi everybody, and thank you so much Shandol, for kicking us off today. I am so excited about this panel and this conversation to talk about the future of peer review. There are many recent changes, some coming from the White House, some coming from within the academy itself, and advances of technology that have all been raising questions about the future of peer review. We're going to talk about that today. Is peer review worth saving? Should peer review processes be revised? Should reviewers' work be recognized in new and different ways?

Let's have an essential science conversation. I'm really excited to introduce our panel. First, Dr. Joanne Davila is a professor of psychology, and the chair of the Department of Psychology at Stony Brook University. Her area of expertise is in romantic relationships and mental health in adolescents and adults across the gender and sexual identity spectrum. She's published and presented widely in these areas. Her work has been featured in a variety of media outlets and a TEDx talk. Dr. Davila is a fellow in APS, ABCT Division 12 of APA Clinical Psychology.

She also was the editor of the *Journal of Consulting and Clinical Psychology*, one of the premier journals in the field. She has served on many other editorial boards and grant review panels. Dr. Davila also has served on numerous boards of major professional associations, including CUDCP, the Council of University Directors of Clinical Psychology, the Academy of Psychological Clinical Science, the Society for a Science of Clinical Psychology, and the Psychological Clinical Science Accreditation System.

Next is Dr. Craig Rodriguez-Seijas. Craig was born and raised in Trinidad and Tobago. He's completed his undergraduate training in psychology at the University of West Indies and his PhD in Clinical Psychology, at Stony Brook University. He completed his pre-doctoral internship and postdoc fellowship at Brown in the

Methods to Improve Diagnostic Assessment and Services or MIDAS program. He continues this program of research as an assistant professor at University of Michigan in the clinical science area.

As the PI of the Stigma Psychopathology and Assessment Lab, his interests lie in understanding dimensional models of psychopathology and applying them to improve assessment conceptualization, and intervention among marginalized populations, in particular, sexual gender and racial-ethnic populations. Craig's clinical training lies in providing evidence-based affirming interventions for sexual and gender minority individuals. Next is Dr. Jessica Schleider who's an assistant professor of psychology at Stony Brook University, where she directs the Lab for Scalable Mental Health.

In support of her research on brief scalable interventions for mental health problems, she secured over \$6 million in federal, foundation, and industry funding as PI or Co-I. Dr. Schleider has been recognized via numerous awards, including the NIH Director's Early Independence Award. Her work has been featured in media outlets such as the *Wall Street Journal* and *The Atlantic*. In 2020, she was chosen as one of the Forbes 30 under 30 in healthcare.

Dr. Schleider has published over 90 scientific articles already and book chapters and created or co-created several single-session mental health programs, that have reached over 30,000 people to date. Based on these programs, Dr. Schleider and her colleagues published a self-help workbook, *The Growth Mindset Workbook for Teens*. She's also co-edited the *Oxford Guide to Brief and Low-Intensity Interventions for Children and Young People*. Anne has just written a non-fiction book called *Little Treatments Big Effects*.

Look for it on the bestseller lists in 2023, and it's going to be focusing on how single-session interventions and meaningful moments can transform mental health. Last but certainly not least is Jasper Simons. As Chief Publishing Officer of the American Psychological Association, Jasper Simons oversees a vast portfolio of psychological-related publishing products, including journals, books, library databases, and digital learning solutions. He's responsible for driving the strategy and establishing the editorial policies, producing content, developing products, and overseeing the related sales and marketing services.

At APA, Jasper manages a team of over 200 staff members. In recent years, he and his team have developed innovative new product lines that will ensure the future relevance of the association. Jasper's a member of the Association of American Publishers Board of Directors and serves on their audit committee. He's a former chairman of the Board of directors for Cross Ref, was a member of the Standards and Technology Committee and the STM Association and served as the keynote at STM Society Day in 2020.

Jasper has more than 20 years of experience in scholarly and professional publishing, working at leading publishing organizations such as Elsevier, Sage, and Thompson Reuters prior to coming to APA. Thank you all so much for joining. We have such a distinguished and esteemed panel that following those introductions, we have no time to discuss anything further. Thanks for attending. I'm so excited that you're here and I do hope that we can talk about a wide range of topics.

Maybe it would be good if we could ask Jasper to start us off and tell us a little bit about the recent OSTP guidelines that have come out on open-access content and how will this have potentially an impact for peer-reviewed journals.

Jasper Simons: Thank you Mitch, and welcome everyone. I'm very happy to see so many of you join today and from across the world, and wonderful to be with this esteemed panelist. I think I'm the only one who has not written a book and hopefully, that will one day but maybe not in psychology. OSTP is the Office of Science and Technology Policy within the United States, and it's a body within the White House that sets guidelines for policy for agencies within the United States.

We've been acting within the US under what was called the Holdren memo for about 10 years. Recently Alondra Nelson put out August of last year a new memo with further guidance to make federally funded research available immediately after publication without a 12-month embargo, and for research from all federal agencies. Also, those under \$100 million. I actually read earlier this week or over the weekend, that Dr. Alondra Nelson, a sociologist, is actually leaving OSTP. We don't foresee any changes there.

In short, Mitch, I do not think that this new guidance will directly impact peer review. It will certainly change what research content will be available to the general public immediately after publication. The changes might be coming indirectly if publishers need to adjust their processes on the backend. It is early and way too early I think to say how that might change. Just for everyone on the timeline, the policy will impact new federal grants as of December 31st, 2025. We actually do not expect any changes to papers--

As a publisher, we don't expect any papers to come in that fall on it as new guidance until summer in 2026, 2027. At that time, I think that all of the discussion that we'll have around peer review will be as equally applicable today as it is then. I don't see a direct impact.

Dr. Mitch Prinstein: Thank you so much, Jasper. I know that one of the things that people frequently talk about is the way in which public access could be obtained by posting articles on open source platforms, things like PsyArXiv, which can be posted before or after peer review has taken place. Jessica, let me ask you, what do you think are the benefits and maybe some of the limitations of our current peer review process as a process to ensure the rigors of science?

Dr. Jessica Schleider: This is a topic that's gotten more and more hotly debated, I think since preprint servers like PsyArXiv, BiorXiv, and similar servers have become really popular. Particularly during the COVID Pandemic when really these preprint servers made it possible to access critically important scientific innovations and information at a time when waiting wasn't really an option. I think there are many benefits, particularly benefits to early career researchers and the public folks who would presumably want to read the science that we come up with.

For early career folks, preprints are a way to demonstrate your very first contributions to the scientific literature. Yes, before peer review, but at a stage where maybe you're in your first few years of graduate school, and you want to be able to share your work or cite early work and grant proposals that you're first pitching. That

applies to early career faculty members as well, especially now that the National Institutes of Health allows you to cite preprints in grant applications.

It's also the case that a lot of the time our science is stuck behind paywalls at subscription-only journals, and less authors are in positions to pay very pricey, open-access fees, and preprints eliminates that barrier. For the sake of communicating our science to the public, with journalists, to folks who would want to consume our research, the people who are research-- In theory, it's designed to benefit. Preprint servers can make that access more possible. Drawbacks are some-- There have been debates as to whether peer review is necessary in order to establish the scientific rigor of an article.

I think there are competing views on that. There was an article that came out in 2020, that showed in terms of various markers of replicability and rigor. I can drop this in the chat to the link to the paper. Something like 72% of peer-reviewed papers reached replicability and rigor markers and 68% of preprints did on certain servers. That was a very, very large study of many different preprints and published papers in a certain field. That was a statistically significant difference, and it was an average. Of course, there are going to be variations.

Was it meaningfully significant in terms of we can't trust preprints and papers? That I think is an open question and will require authors and researchers all over the place to really carefully evaluate what they read as preprints, but also to carefully evaluate what they read in the published literature. Because there is no guarantee that two expert opinions are going to create a perfectly trustworthy scientific article. I think in either case, it really does come down to individuals' ability to read and interpret for themselves what's being put out there in the literature.

Personally, I think the benefits of preprints for accessibility of science and promoting early career folks' work outweigh the drawbacks, given the potentially minimal difference between the reliability of articles. A lot of people have different opinions. I'd love to chat more with others on the panel.

Dr. Mitch Prinstein: Joanne, you've just finished over a decade of editing in one of the field's most prestigious journals. The number of action letters you have written, the number of reviewers you've begged to participate in the peer review process can't be overstated. What do you see as the pros and the cons? How would you build a peer review system today, if you were starting from scratch? Any thoughts on that?

Dr. Joanne Davila: Thanks, Mitch. That's a challenging question because there are so many challenges with regard to peer review. There's lots of ways for me to go with the question you asked. Let me stay with this idea about whether peer review can really ensure the scientific integrity of published papers because that's relevant to how you might build a new system. I think the answer is sometimes yes and sometimes no, which speaks to Jessica's point about preprints not being any less replicable and so forth than other papers.

One of the significant challenges of getting papers through peer review is consistency across reviewers and across papers. That was something that I came up against very, very regularly at JCCP. Particularly when it comes to things like

reviewing of statistical methods, which change a lot, there's a lot of debate in the field about what appropriate methods are to be used for what particular research questions. When you're dealing with methodological issues and conceptual issues as well where there is not one accepted perspective, then the review process has the potential to get compromised.

Both within an individual paper and across papers that are of a similar kind of nature. I would not often but sometimes get complaints from people who said, "This paper was published. Mine isn't that different from it. Why am I getting these kinds of critiques?" and so forth? I think that's a very, very significant problem that we have to address in order to make peer review more fair. It's hard to address because we'd like to think there are more objective standards in what makes good science than there actually are in practice, I think.

Dr. Mitch Prinstein: Craig, I'd love to hear your thoughts as well about how we can increase the reliability of reviewers, so we don't get that one weird reviewer too that we all get that is like, "What? Do they even read the paper?"

Dr. Craig Rodriguez-Seijas: I guess my thing of reviewer too, sometimes I've been a reviewer too, not really, but maybe more critical than people have liked. I recently this year become an editorial fellow for like *Journal of Psychopathology and Clinical Science*. I'm getting more involved in the editorial process. The way I've been thinking through is I don't know if necessarily I want the same thing from each reviewer. Having now finished up a special section in clinical psych science as well, that we're now wrapping up, I don't know if I want the exact same review from every single reviewer.

I might look for different pieces, like the amount of expertise in a certain type of methodology, whereas somebody would have more expertise, perhaps in more of the conceptual domain that underpins the study. That's a critique I want from them more so than the methodological piece. I think it depends to a degree-- I suppose I don't know if it's possible to get to perfectly reliable reviewers, because we're all coming from different viewpoints and different standpoints. Different theoretical backgrounds, different trainings, and different perspectives that are going to add just uniquely to how we look at manuscripts.

I guess definitely as Joanne was saying, it becomes difficult for the editors themselves to have to now make sense of potentially two or three distinct reviews and create a story and make a decision about what's happening with this manuscript. I don't if I'm skirting the question, or if my feeling is-- I don't know if I want perfectly reliable reviews in the sense that they should be giving the same verbatim type of responses. There should be some consistency above maybe the value of a certain manuscript.

If they're differing, it shouldn't be that one is saying there's a fundamental flaw and one is saying, no, there isn't. Even if that is the case, perhaps it's because one reviewer that's not their expertise. They're not going to comment on maybe the methodology as much. I guess I would wait the review based on the information from the reviewer based on their expertise, which sounds like a really intense process with a lot of decision trees and decision lines along the way. That's my way of answering and not answering. Sorry.

Dr. Mitch Prinstein: That's an excellent point. Excellent points. Imagine that someone proposed a study for you to review, and the study was going to be based on evaluating competence, and they were going to non-randomly pick several experts to provide qualitative feedback without quantitative information. That information would then be read in a non-standardized way by someone who had tried to extract the relevant themes from that feedback and then assign a dichotomous decision based on that information that they received.

We probably wouldn't accept that as adequate psychological science, but that's exactly the process that's used, and not just for publications, but for grant review, for tenure review. This is what we do. There's a reason why we keep doing it that way. Jessica, what do you think about whether this way deserves-- Do we want to look at this and think about different things that could be done to make this meet better scientific principles and the review process itself, or are there reasons why this system has been set up that need to be retained?

Dr. Jessica Schleider: When was this system set up? Multiple centuries ago. This is not a modern-day, tailored system by any stretch of the imagination. I don't think we have a choice. We have to reimagine it because it's not working. I say it's not working resolutely, because I am a relatively early career researcher and I mentor PhD students. Over the years that I've been submitting articles, which now is 10 or so, the times to get a couple of peer reviewers have increased so dramatically.

I think this is also reflective of the pressure to publish and the increasing expectations of what everybody's going to submit without increased expectations that you're also going to review more. Which of course, we couldn't even impose because we have no payment structure or compensation structure for reviewing. It's a very challenging cyclical problem. I ultimately don't think we have a choice. The current system is going to have to change if we want to keep disseminating science.

I think that's why the preprint servers have emerged because people were feeling that pressure of something has to give here. There's just too much of a backlog. I do think the question of should we consider is a little bit, we have to. It's happening. We need to think about how we're going to adapt to this new world in which people are routinely publishing things before peer review happens. I do think the problem is important to address though, from a grant's perspective, because the issue with this super subjective and inherently subjective, Craig, as you were saying, like it has to be subjective.

That's the whole point of getting these multiple folks' different perspectives and ideas is that any inequities, any prejudices that exist in our system already are only going to get exacerbated without these guardrails of ensuring some equitable allocation of resources and equitable opportunities to publish in peer review journals. It's just going to keep reproducing those inequities if we don't intervene. I think it's both already changing and it's going to have to change further in order to--

I guess meet the calls from within the field to address racism within clinical psychological science and reduce these gaps in what research is valued, what kinds of methods are valued, and what gets attention in premier journals.

Dr. Mitch Prinstein: What are some of the ways in which inequities are being reified through the peer review process, in your opinion? Anyone?

Dr. Joanne Davila: The labeling of who experts are for sure. In every field, every sub-domain, we can all probably name some of the people the field thinks are experts. They will have a particular set of opinions that they will apply regularly to the research that they review. We're not thinking critically enough about whether that is an appropriate standard to continue. That's one thing.

Jasper Simons: Craig, you had your hand up, right?

Dr. Craig Rodriguez-Seijas: Oh, yes. This was just something else I was thinking about is that which doesn't get the question that Joanne was just answering, but more tag on from what Jess was saying, which I completely agree with. At this like, about the need for changes and at the same time actually really like the peer review process from the standpoint of-- for the most part, there have been a couple more recently, a couple cases where it hasn't maybe been as beneficial, I think, a couple reviews, but for the most part it's been really helpful to improve my own science.

That, I think what it was in my mind at least, maybe what the essence was supposed to have in, like having folks who are not with just the tunnel vision that I might have, and my lab might have, as a working on a project is we're so involved in it that we're just not seeing other aspects that have been actually really helpful. That when reviewers have brought them up. Then I think improved manuscripts in many cases. Coming back to what you were asking about what are the kind of inequities there, I think that's a big piece of--

I've seen more and more discuss about who's shouldering the burden of the peer review process, and especially following probably on more earlier career folks for whom there are less resources on time, perhaps as opposed to maybe more senior folks. It is a difficult process because it's not a rewarded process. There was an analogy that somebody answered, and I agreed with where it's like a grocery store, the consumers we're not-- Employees are paid to stock a grocery store for consumers to get what they need.

The reviewers aren't really being compensated. We think of it as in terms of it's supposed to be service to the field, but not every position is going to be able to do that. Not every person in every single academic position or position they have has that resource devoted in their position to do that. I think those are the inequities, like depending on the position you hold and where you fall along your career stage, then magnifies, can you do reviews to carry your part, I suppose?

Jasper Simons: Yes. I think it works--

Dr. Mitch Prinstein: Thank you, so...

Jasper Simons: Yes, I have a couple of thoughts too. One thing I do think that we're mixing a few different things together here that are not just peer review. A couple of thoughts. First, I don't think preprint servers were started because of problems with peer review. It was because of access. I actually also don't know if the burden for reviewers is substantially higher on early career. I don't know if that-- Is that true?

That I don't know. I also don't know for sure if inequities are if we talk about access that they wouldn't be changing if it needs to move to a different model.

If we want to do, someone's got to keep the PsyArXiv servers up. If that work needs to be continued, then I think there's still work that needs to be done that needs to be coming from somewhere. I think that's another area that we need to look into. One thing that I haven't heard so much and actually, Jessica, to your point, I don't agree that just because something is old, it's wrong. I don't think that was maybe not what you intended, but that's how I heard it. I think that the value of a journal has not been spoken about.

I think peer review is not only a barrier, but it's also a selector in a sense of identifying a certain area of research, a certain mode of doing research certain topic of research that is of interest to a particular audience. There are preprint servers everywhere. There are journals everywhere, but I think a lot of people connect with particular content style content topics. I think journals provide a benefit of providing you with a snapshot or a selection of the content. That's something I haven't heard as much.

I think that that sometimes gets lost a little bit in the discussion. I want to just raise that.

Dr. Mitch Prinstein: Jasper, I wanted to ask you and your team have spent so much time really thinking about equity, diversity, and inclusion within the publication process. I wanted to ask you if you could talk a little bit about some of the things that your team has been putting together to try and change this dialogue.

Jasper Simons: Yes, sure. Actually, the one thing that I forgot to mention is also compensation for peer review. I know that there may be a lot of things that we can do differently, but I am not sure if compensating for peer review would not create bigger issues than it solves. It doesn't mean that if you find-- If you do good research, not everyone is doing it and therefore there won't be a lot of people who'll be available to really critique your work. I think it's the nature of the field a little bit as well.

A couple of the things that we've done, and Craig mentioned the fellowship on the editorial side, I think that it is important that we create opportunities for those who are a little bit earlier in their career to participate on editorial boards, et cetera. To get experience, to get exposure, to get the coaching, and to help out to do the work. That is not a full plate of work. I completely agree on the points that your times will be in high demand, and you can dedicate the times to all the requests that you're receiving for doing peer review.

We're also mulling through often the same pool of reviewers because we reach out to those who we know who've done a good job before, who respond quickly. I think that I'm speaking of do we as sort of editors and reviewers that I've worked with over the past. I think it's important to deliberately expand the view of who you have in your pool. I think the editorial fellowships program that we've started with almost all, I think of our APA journals right now is a really wonderful program for that.

Dr. Mitch Prinstein: Thank you. I want to shift to this question about paying for peer reviews because it's very commonly discussed as something, and there are pros and there are cons. Let's just dive into that for another moment. I'll start off by just saying that I'm old enough now to be the old man on the call and say that I remember being taught that this was your service, and it was a trade-off. You submit an article and three people have to work a few hours to review your article, so you should volunteer to read somebody else's article.

This is just the grand trade-off of how the field works, but that's not necessarily the way it feels for everybody, and that's not consistent with people's opinions today. I want to listen and hear where we are in the diversity of opinions on that idea. Why is that old model, that prior model, excuse me, why does that necessarily feel right for everybody now? Any thoughts about that, Jessica? I'm not suggesting that's how you feel, but I'm wondering if you can represent that point of view for us.

Dr. Jessica Schleider: I have thoughts on everything. [laughter] This is fine. Well first, I just want to respond quickly, Jasper, to your really good points. You're right, journals create an organizational structure a lot of the time for finding material that's relevant to folks. I think a really nice marriage of both the preprint servers with it is everything is there for you and the journal system are overlay journals which have started to emerge onto preprint servers. Platforms that draw from these servers to organize things in libraries that people would be able to navigate more easily.

When I mentioned that peer review is old, I wasn't intending to imply at all just because something's old it's not useful. I was mostly referring to the technological innovations that have happened since the start of peer review that have made access to and production of information astronomically greater that put new pressures on the system that didn't originally exist. Mitch, to your question, I think that it becomes really complicated when the pool of possible reviewers for certain fields is so much narrower than other fields.

[laughs] For mixed methods research, to take one basic example, there are relatively few folks in clinical psychology trained in mixed methods work creating a disproportionate reviewer burden on that kind of research for a very small pool of people, which can create real problems in terms of equitable publication of work. Paying reviewers would at least be a way to alleviate disproportionate burdens, I think. However, the money has to come from somewhere, one, and two, I think that it's essentially a Band-Aid on a system that really does need to change in more major ways than just paying reviewers in my opinion.

I think it would be great if we could just pay reviewers and I don't think that would actually solve the full problem.

Dr. Craig Rodriguez-Seijas: Can I add something I was thinking about and coming back to this discussion more about the journals themselves and something that Jasper and Jess were just talking about that journals have their own audience, but I think that's assuming that the journals are more passive as opposed to, well, journals also dictate what is considered as robust science. Then who gets it published there? Who is on the editorial board dictates what gets into those journals.

I think there have been a lot of recent articles more and more about where the top journals, when you look at what's been published, they're typically published on pretty homogenous samples, which are typically of the dominant groups. Our non-Hispanic, white, cisgender, heterosexual within the US or Europe at most kind of populations. I think all of that comes into, yes, journals are siloed by, I guess what the readership wants, and they also define what the readership is and define what is considered rigorous.

Then it becomes this competition because our systems in academia are also built on that. Like did you publish in that level journal or something else? The more specialty or niche journal type of thing? It all boils down there. Regarding the idea about whether or not reviewers should be paid, I guess I always thought of it similar to Mitch, things of it or was told to think of it that it's the kind of service for people having to review my articles as well. To a degree, now I'm being a bit more selective because I just can't review everything that comes on my desk.

Sometimes there are things I want to read because they're usually things within my domain that I want to know, oh, what are people doing now? This is really interesting, but paying or not, I can see the pros and the cons and I'm not certain what would be the right wait. As Jess said, it seems like a Band-Aid solution to something more fundamental that needs to be rethought.

Dr. Mitch Prinstein: I want to follow up and ask that sometimes when you hear the argument about peer reviewers getting paid, it's articulated with some resentment towards the publishers. The for-profit publishers that might be making quite a lot of money from the peer review process, but the peer reviewers themselves don't see that money directly. Jasper, APA is a non-profit association, and many of the psychological societies that folks listen in might work with even for-profit publishers, but they get a piece of that income back to run their nonprofit.

Can you just clarify for us a little bit how revenue drives a nonprofit? Why is that revenue important?

Jasper Simons: Well, lots of thoughts. In my experience, I've worked at other associations too or in collaboration with other associations and societies, most of them either have income from conventions or meetings from training programs or standards that they might license, journal and book programs, and membership. The mix is different from society to society. I've worked on both for-profit and nonprofit publishers and what is exciting for me to be a part of the APA is that the work that we do and collaborations that we have with the scholars and the institutions, when there is a surplus, it goes back to the organization.

To help do advocacy for increasing the compensation for clinicians or for advocating for higher grants for certain research areas. I think that the combination is-- if you split it apart into narrow sections, I think that you lose some of the value of the fact that we're working together as a profession and as a set of professionals supporting the profession to advance a particular field. We do that in different ways. Some are bringing in extra revenue or income, some are just expenditures, but together they really make for a really wonderful organization.

That's why societies have been around forever and why I think they'll outlast all of us.

Dr. Mitch Prinstein: Any thoughts or comments on that? We have a couple of comments from listeners who are wanting to know specifically what are the kinds of things that could be changed given to what we've talked about so far. For instance, should peer review move towards a more quantitative approach? Are there specific anchors that should drive peer review, the reviews themselves, or change the format in which reviews are written? Should peer reviews be de-identified rather than anonymous in most cases?

Should there be a quid pro quo if you submit an article, you have to review an article [laughs] from that same journal? I'm just throwing out some of the kinds of thoughts. There are no simple solutions. I don't think these ideas have not been instituted because no one's ever thought of them before, but I'm just curious if there are low-hanging fruit thoughts that you think are worth serious deliberation within the field now.

Dr. Jessica Schleider: I think of-- oh, sorry, go ahead, Joanne. I think a few things that are already starting to happen are actually really positive developments. I have a lot of issues with the idea of a rubric because someone will be very unhappy no matter what rubric [laughs] we come up with because it will be completely inappropriate for their approach to research. We shouldn't constrain even the peer review process applying to entire subfields that we can't conceive of necessarily. That's I think really, really tricky.

Things that I think are positive developments, a lot of journals publish the peer reviews along with the paper. I think that's a really great [chuckles] idea for a lot of reasons. It creates accountability for the peer reviewers to really approach this from an optimally constructive way, knowing that their review is going to be published, not just the paper that results from it. That open peer review process I think is a really nice addition. There's been some movement, especially among people with more job security among signing reviews for a similar purpose.

I think the open review idea, it just gets everyone on the same page with taking this process fully seriously, really thinking through what they're writing down. That also highlights a real problem with peer review, again, in that I totally agree, Craig, what you said before, peer review has helped me many times. I am very grateful for many reviewers' comments, but it shouldn't be a matter of luck. It shouldn't be like, "Oh, I got a good reviewer." [laughs] This went well just randomly. That's not a good system. Yes, I got off track. Go ahead, Joanne.

Dr. Joanne Davila: I want to build on what you were saying, Jessica, which I don't have a specific implementable idea but is there a way that we can make peer review more collaborative rather than competitive? Is there a way for it to be something that we do collaborative science now that's the way science is going? Can peer review go in that way too so that it doesn't feel like you said, there's this sort of random who's the editor getting, what are they going to say, am I going to get the tough reviewer or the easy one?

Are they going to say something snarky because they can because they're not signing it and so forth? Those are just significant issues. If there was a way to think about this as a collaborative endeavor in the same way we think about conducting our research, I think that the process would be a lot better. Perhaps people would be more willing to be engaged in it in a way that doesn't feel like they're just being asked to do more and more service. I want to just also just circle back to a point really quickly not to take us off track but this idea of who the burden is falling on.

I really resonate with what Jessica's saying about smaller fields. I also resonate with what Jasper was saying that I don't think it's falling too much across the board on early career folks. In fact, I think we need early career folks more in the process because they are the ones who are the future of the field and can change the field. I think we're actually doing worse in peer review when we continue to rely on the same people who reviewed everything for a really long time. I think that's actually more problematic. I just wanted to get that out there but collaboration I think is the way we need to be thinking about this.

Dr. Jessica Schleider: I think that's reflected, I totally agree, Joanne, in some ways. In a lot of preprint servers actually have opportunities to post public reviews of papers and contribute to sort of a living scientific document where the authors can then upload revisions to their paper in response to reviews, they've received that are publicly posted. The issue then goes back to what's the incentive for anybody to do that which is a huge challenge and I think is something we have to take seriously. What's the reward for being collaborative?

I think that's a challenge to team science more broadly and I think it applies here.

Jasper Simons: Yes. Thank you, Jessica, for bringing up the open peer review. I remember I don't know, 15 years ago when I heard first forum from F1000 and their post-publication peer review model. I thought if I have to bet on the future this is going to be it. It happens but has not become the custom at all. That surprised me actually probably more than anything. I just wonder what might be the reasons for that. Joanne as an editor, I'm sure you've had discussions also about open peer review. What are some of the pros and cons of doing it open?

Dr. Joanne Davila: You mean open with regard to identifying yourself?

Jasper Simons: I think that that's a sub-area, yes but I think Jessica, you were more talking about having the entire process in a public domain.

Dr. Joanne Davila: Yes. I am actually in favor of that. I really like that idea because it's very transparent. I guess you're saying why haven't we gone there more fully? Is that?

Jasper Simons: No, I don't know why it hasn't taken off more broadly. I was just surprised by that and there might be some benefits that the editors or peer reviewers or authors see in not having it open. I just would like to hear the other side of the story because maybe I'm missing something.

Dr. Mitch Prinstein: The piece Jasper, that you're thinking could be ready to deploy if there was more of an interest in it is not keeping a comment bubble open next to

every paper post-pub but you're saying publishing the reviews that went into it before the final disposition for final acceptance or both.

Jasper Simons: I'm just thinking as a professional in the field, just curious about trends. I wasn't thinking about APA journals or anything in particular. I'm just surprised that it hasn't taken off more broadly and I just wondered if there's a reason for that that people might know.

Dr. Mitch Prinstein: I can't think of a review that I would be upset to have published publicly. I don't know if there are many people that would and maybe those people need to think [laughs] about that if that's the case. I like that. I'm a little scared of what trolls might write comments that are not scientifically helpful. If these were just kind of open forums to discuss publications outright, that would take a lot of work and effort I imagine but publishing the reviews themselves is a very interesting concept.

Dr. Jessica Schleider: It would screen out the people who were worried to have people read their article. I think that should happen.

Dr. Craig Rodriguez-Seijas: I would say something to add just as we're just discussing it. As on the review end actually really like when the article it's masked or double-masked even because I just don't like knowing while I'm reading through who wrote it. The piece might be in related to being early in my 30 as a faculty member. If I knew it, somebody who's most senior to me is in the field I do, there's always a concern that maybe I just don't get this enough. Maybe I'm missing something. It's a second guess what I would normally write as a reviewer.

If I get articles sent to me as a review and I usually scroll very quickly past the author. I don't see it as much as I could do it on my own and then come back after I've completed my review. I have no problem signing as well. I've mixed thoughts about signing versus not signing and especially as it comes to different personalities, but I really like just not seeing who the authors are at first, at least until maybe after the case so it doesn't impact how I'm going to write this.

It's not so much for in terms if I'm going to be rude it's more that I might self-silence because I just feel like maybe I'm not an expert enough in this area or something like that.

Jasper Simons: I think that that might be where my thoughts are going too, that with open maybe you introduce new risks of bias that you don't have in a double-blind.

Dr. Jessica Schleider: Can you really make peer review double-blind though? I mean in such small fields.

Jasper Simons: Fair point. [crosstalk]

Dr. Craig Rodriguez-Seijas: I've had a couple of times where I thought I knew the other was and then when I saw like the accepted art I was like, "Oh." [crosstalk]

Dr. Jessica Schleider: That's just as bad though because then you're biased on who you think it's by.

Dr. Craig Rodriguez-Seijas: That's why I had to be actively like, okay, hold, and that's it's an active process at least for me thinking what am I responding to? Let me try to forget that piece which is difficult as well. Yes, I don't know.

Dr. Jessica Schleider: I don't know. I think it's dehumanizing to feel like you're talking to just a piece of paper when you're reviewing something. If you know that they're human people who will be reading your comments maybe people would be more thoughtful about their reviews.

Dr. Craig Rodriguez-Seijas: Yes, but I agree. It's still thinking it's a human behind me. I just don't know which one it is. Either way, I should write this no matter what. Even if it's somebody I know well, I shouldn't have silence because of that. I should say exactly what I'm thinking. It's in a polite way so I don't know.

Jasper Simons: Jessica, if you've had any bad experiences with any of the APA journals, just please let me know.

Dr. Jessica Schleider: [laughter] No.

Jasper Simons: Hopefully not.

Dr. Mitch Prinstein: I do think that the review process can be an emotional experience for the author. Many of us have gotten our sets of reviews that we read we have to put down for about 48 hours, engage in some deep breathing, some cognitive restructuring before we pick it back up and we say, okay, okay, I'm ready to start addressing those. I think the difference between sign reviews and public reviews, there could be a stepwise process here. Public reviews give the opportunity for people to comment on the reviews and whether they thought those were fair or not.

Which might be an interim step before actually signing the reviews which I think also is perfectly fine, but one could imagine some poor regulation skills leading to less than civil interactions happening during that 48-hour cool-down period. I think there are a lot of different pros and cons to consider but I love the concept of how to really change the peer review system if it feels like it needs a change. That's what we're here for so there are lots of comments here in the chat and I want to make sure we get to some, please.

Dr. Craig Rodriguez-Seijas: One comment about the potential to impact certain folks certain demographics thinking earlier career folks and that resonates with me not necessarily from peer review but from similar processes. Where I've gotten feedback from other senior-like mentors in my life in this field where I might have pushed, and it might be a senior person who everybody knows and loves. Then I've gotten the feedback very specific, "Do not do that," because I've seen these folks-- I'm quoting. Seeing these folks tank early careers persons, tenure cases, and things like that.

I see that come up and I've gotten the advice and I've heated and maybe not enough, perhaps, probably. We're talking about this as if it's an even playing field and I don't think it is for many folks. The folks who are in the most precarious situations because we depend on-- For a tenure case because that's the position I'm

in. People writing letters, and people knowing you in the field, or knowing of your work in the field and having something positive to say and being in a field where there are a lot of big egos.

Lot of folks don't like when they get questioned or when things change in different ways. That's a very real issue that is always in the back of my mind like any change. What is the potential downstream effect for the folks who aren't at the table most of the time?

Dr. Mitch Prinstein: I'm so glad you raised that point. It is such an important point. I think also there are many folks who identify with a minoritized identity and the vast majority of folks that I've talked to, I don't know if this is representative, will say that they have had things happen in the review process where they have felt microaggressed upon by some of the comments in the reviews. That presents a whole other dynamic and another way in which the changes to peer review could be very helpful or could end up leading to more harm.

That would have to be thought through very carefully. With the time that we have left, just a few minutes wish list for what reviewers could do better. Having been an author, having been a reviewer, having been an editor, having been a publisher, any pleas for what you'd like to see done differently.

Dr. Joanne Davila: Write the review that you would like to get.

Dr. Mitch Prinstein: Great one. Do we teach people how to review papers in graduate school by the way? Are we doing that systematically?

Dr. Joanne Davila: Not consistently. Not systematically. I think some of us do but I think it's extremely important to do that.

Dr. Jessica Schleider: I think it's super important as well. A lot of the folks who are mentoring PhD students never got that training. We're all making it up. Those of us who are working with PhD students and mentoring them in doing this. I popped in a quick response to somebody's question. It would be such a huge value-add to have a curriculum that was easy to pick up and use by PhD advisors or some kind of guide for co-viewing with earlier on trainees. Just to give a little bit of structure and reliability to the process of training folks to do this.

I think it's important and it's totally arbitrary right now and now it's implemented. I also think that in terms of what I would like to see in peer review, the spirit of, "Write your review to help this article become the best version of itself." I think is not often how people are approaching reviews because we're all trained to critique and criticize but if you assume that, "Okay, there are a lot of journals out there, this is going to get published. It's going to get published eventually. How can I make sure this is the best version of the thing that I'm positive will eventually get published somewhere?"

If that was the attitude going into it, I think we'd be in a better place and there's still a need for work guardrails to ensure equity and lack of disparities being worsened.

Dr. Craig Rodriguez-Seijas: Anything I'll add if it could be helpful, it's the way I approach teaching, I suppose peer review with my students. Again, this was how my mentors work with me is, if a novel comes, I think is within a wheelhouse or as a good learning opportunity for a student, we'd each review it separately and then come together. I would write the review and then show them, "Here's why I included this part, here's why I took this part out." I go through the decision tree along why I came up with a review I did which is usually an amalgam of both of our points.

Then why, "You said this but here's an issue. Here's how I might phrase it differently. Here's why I don't think this one applies." That's what I tend to do when I'm doing with my students, and I had mentors who do that with me. If that helps folks, that could be a beginning of a model, I guess.

Jasper Simons: It's a classic constructive feedback approach that you would take in an office environment where you'd try to be constructive in identifying areas of strength and easing into those areas that might need a little bit of attention but being there to support people. I think it takes time. That's the thing. To be thoughtful and serious about that requires you really to commit some time. I think definitely there's more work to be done in making sure that we spread the peer review process over more people that we get it out of the tower.

Dr. Mitch Prinstein: I'm so glad we're addressing this topic and these issues head-on. I want to thank all of you this very distinguished panel for your candor, for your time, and for your expertise that you gave to the science community today. I want to thank Shandol Hoover and all the other APA staff that make these forums happen and so successful. I really want to thank everyone who joined and let you know that you can access all of these programs on the APA website and learn about the other ones coming up through Science Spotlight.

I hope that everyone has a terrific day, and you write a nice review this week. Thank you.

[END OF AUDIO]