International Society
for Research on Emotion

Emotion Researcher

ISRE's Sourcebook for Research on Emotion and Affect

http://emotionresearcher.com

June 2023

Editors

Cain Todd

Lancaster University
c.todd@lancaster.ac.uk

Eric A. Walle

University of California, Merced
ewalle@ucmerced.edu

Table of Contents

Editors' Column

Updates & Awards

Cain Todd & Eric A. Walle

After a lengthy hiatus, we are pleased to provide a new issue of Emotion Researcher to the ISRE membership. Below we share a synopsis of what you can find in this issue.

2022 ISRE Dissertation Awards

We are pleased to present a special issue of Emotion Researcher devoted to sharing the research of the 2022 ISRE Dissertation Award Finalists. The initiative was organized by Disa Sauter and Eric Walle and involved the help of numerous volunteer reviewers. The finalists, Chelsea Kelly, Erik Nook, and Meltem Yucel demonstrate the interdisciplinary spirit of ISRE.

Announcements

The issue includes updates on various items relevant to our membership. ISRE President Ursula Hess shares details about planning for the 2024 ISRE Meeting, the new editors of Emotion Review, and more.

Relatedly, we are delighted to share a message from the incoming Co-Editors of Emotion Review. Giovanni Colombetti, Bradly Irish, and Brian Parkinson share a bit about their backgrounds, as well as their aims for the journal under their joint editorship.

Lastly, the ISRE Early Career Researchers Section (ECRS) have updates on their career development series and webinar series. We encourage our ISRE early-career researchers to get involved with ECRS by attending their informative sessions or becoming active in planning their initiatives.

We appreciate our role in providing the ISRE membership with announcements, planning updates, and sharing interdisciplinary emotion research accessible to a wide audience. Our next issue, focusing on Grief, is already drafted and we anticipate releasing it in early fall, with the intent to return Emotion Researcher to its regular quarterly predictability thereafter.

Warmly,

Eric & Cain

Cain Todd is Senior Lecturer in Philosophy at Lancaster University (UK). His research covers a wide range of issues centring on emotions and evaluative experience, most recently the phenomenology and objectivity of emotional experience and the role of attention and imagination therein. His co-edited collection *Emotion and Value* (OUP) was published in 2010, and his new monograph *Aesthetics and Emotion* (Bloomsbury) is due to appear in 2024.

Eric Walle is Associate Professor of Psychological Sciences at the University of California, Merced. His theoretical writings emphasize the functions of emotions, particularly in interpersonal contexts. His empirical work examines emotional development, principally in infancy and early childhood, as well as how individuals perceive and respond to emotional communication. He is also a co-editor of the *Oxford Handbook of Emotional Development* (2022).

ISRE Matters

ISRE Matters

Ursula Hess

Professor of Social and Organizational
Psychology, Department of Psychology
Humboldt University, Berlin
Ursul.Hess@hu-berlin.de

Dear ISRE Members,

In this space the president of ISRE highlights content of the current issue of Emotion Researcher and shares news about the society.

After an exciting conference in Los Angeles last year, the next bi-annual ISRE conference will take place in Europe. ISRE24 will take place in Belfast from the 17th to the 20th of July. The local conference chairs Bronagh Allison, Salvador Alvidrez, Gary McKeown, and Magda Rychlowska are looking forward to seeing you at the meeting. More information about the program and a call for papers will be announced in the coming months.

Emotion Review, which now has an impressive impact factor of 7.345, has been edited by Jerry Parrot, who did a wonderful job but understandably also feels that this should not be a life sentence. Thank you very much Jerry for your stewardship! Jerry will be followed by a team of three Editors. Having a team will allow Emotion Review to even better follow its mission of multidisciplinarity. The members of the incoming editorial team are:

Giovanna Colombetti is Professor of Philosophy at the University of Exeter, UK. Her research focuses on emotion and affectivity, and the field of '4E cognition' (embodied, embedded, enactive and extended cognition).

Bradly Irish is Associate Professor of English Literature at Arizona State University, USA, and studies the literature and culture of 16th-century England, with a particular focus on the history of emotion.

Brian Parkinson is Professor of Social Psychology at the University of Oxford, UK. His research focuses on how our emotions affect

Ursula Hess, ISRE President

other people (and how they affect other people's emotions).

You will find more information on the editorial team in this issue of Emotion Researcher.

Finally, at the 2022 Meeting ISRE, for the second time, recognized young researchers through the ISRE Dissertation Award. The ISRE Executive Committee plans to continue the ISRE Dissertation Award every two years, as well as share the research of the finalists in a subsequent issue of Emotion Researchers. In this issue of Emotion Researcher, you will find the summaries of the Dissertations by Chelsea Rae Kelly, PhD (Winner), Erik Nook, PhD (1st Runner-up) and Meltem Yucel, PhD (2nd Runner-up).

Your President,

Ursula

ISRE Early Career Researchers Section

ISRE Early Career Researchers Section: Updates on 2023 Initiatives

Manuel F. Gonzalez, Olivia S. Mendoza, Soohyun Lee, YongQi Cong, Daeun Shin, & Marwen Belkaid

The International Society for Research on Emotion - Early Career Researchers Section (ISRE ECRS) is a platform for emotion/affective science researchers from any field, discipline, method, or culture. The ISRE ECRS organizes professional and social meetings for early career emotion researchers, both during ISRE conferences and between meetings. Additionally, the ISRE ECRS strives to create and maintain member support through awards, career development opportunities, expert feedback, webinars, and more.

The ISRE ECRS continues to grow since its launch in 2013 and has implemented several initiatives for early career emotion researchers. In 2023, the ISRE ECRS will offer several ongoing career development initiatives and will host the bi-annual webinar series.

Career Development Series

The career development series is designed to enable ISRE's early-career researchers to explore and prepare for successful careers as emotion scientists. Now entering its third year, the career development series will include monthly virtual writing sessions, a new "Academic 101" blog series, and a virtual paper development workshop to help ISRE members refine prospective manuscripts that they have in progress. We believe these career development opportunities will help early-career emotion researchers gain insights from senior researchers and grow their professional networks through interacting with fellow ISRE members of all career stages.

Webinar Series

Through our webinar series, we aim to engage ISRE members during years in which no conference takes place. Last year's webinar series included talks from experienced emotion researchers regarding advancements in emotion theory and science, all of which are now available to ISRE members on the society's website. Our webinar series was extremely successful, with close to 200 total attendees and approximately 90% of attendees expressing satisfaction with the series. This year, we are delighted to introduce our next webinar series. Each speaker will address the broader theme of *Methodological Advances and Challenges in Research on Emotion*. Each webinar will consist of a 45-minute speaker presentation, followed by a 15-minute question-and-answer session with the audience. Webinars will be open to ISRE members and non-members alike. Webinars will also be recorded and made available to ISRE members through the society website.

The aforementioned career development series and webinar series will be advertised over the course of the year. Please keep an eye out for further information on the ISRE website, Listserv, and social media outlets!

Our team is excited to implement initiatives that align with the interests of ISRE and support early career emotion researchers. We are grateful for ISRE's support in implementing these initiatives, the publishers that have supported our initiatives financially, the senior researchers who participate in our initiatives, and the early career researchers who have been part of our journey thus far.

We would also like to thank Tanja Wingenbach and Claire Ashley for their dedication and leadership within the ECRS over the last several years. We wish them both the best in all their future endeavors.

Would you like to volunteer within the ISRE ECRS?

If you are an ISRE Associate Member[1] and would like to get involved, please get in touch.

---

[1] ISRE Associate Membership is defined as: "less-established emotion researchers who have not yet obtained the terminal degree in their field or are engaged in postgraduate training. Associate Members

We are excited for you to help us best support our emotion research community.

Please note that volunteer commitment should be at least 1 year and requires continuous involvement.

If you are interested in joining the ISRE ECRS, please email Manny at manuel.gonzalez@shu.edu. In your email, please include (a) a short bio, and (b) a brief statement about what interested you in joining the ISRE ECRS and which initiative(s) you would prefer to get involved with.
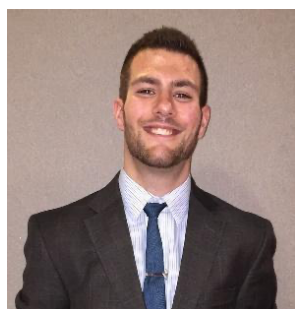
Join us on Facebook!

Are you an early career emotion scientist or faculty that support early career emotion scientists? Join our Facebook page: **https://www.facebook.com/groups/ISRE.JRS/?ref=br_rs**

For any other questions or comments, please email Manny Gonzalez (manuel.gonzalez@shu.edu)

Secretary: Olivia S. Mendoza, M.A. (University of the Philippines Baguio, Philippines)

Olive is responsible for internal and external communications (i.e., communicates with the membership, e.g., through Facebook, the ISRE mailing list) and liaising with the ISRE conference organisers.

Current ISRE ECRS Board

Chair: Manuel F. Gonzalez (PhD, Assistant Professor, Seton Hall University, USA)

Manny coordinates and initiates activities, liaises with the ISRE president/board, serves as a spokesperson of the ECRS, and represents the ECRS within the ISRE board.

Career Development Series – Event Coordinator: Yong-Qi Cong, PhD Candidate (University of Amsterdam, The Netherlands)

YongQi oversees all aspects of the career development series, including developing and scheduling events, recruiting panelists and speakers, and creating professional development resources for the ISRE website.

---

are typically advanced graduate students or postdoctoral students."

Webinar Series – Event Coordinator: Soohyun (Ashley) Lee (PhD, Assistant Professor, William Paterson University, USA)

Ashley oversees all aspects of the webinar series, including developing the year's webinar series theme, developing and scheduling webinars, and recruiting panelists and speakers.

Poster Award Coordinator: Daeun Shin, PhD student (Arizona State University, USA)

Daeun is responsible for managing the poster award at the 2024 ISRE conference (contacting ISRE board, communicating with jury members, calls, etc.).

Additional volunteers:
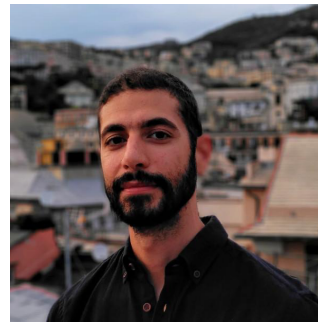
Marwen Belkaid, PhD (PhD, Junior Professor, CY Cergy Paris Université, Italy)

Emotion Review: Editorial Team

Emotion Review: Incoming Editorial Team

Giovanna Colombetti[1], Bradley J. Irish[2], & Brian Parkinson[3]

Editorial Team, *Emotion Review*

[1] Department of Social and Political Sciences, Philosophy, and Anthropology, University of Exeter

[2] Department of English, Arizona State University

[3] Department of Experimental Psychology, University of Oxford

Aims

Since the first issue of Emotion Review appeared in 2009, the journal has been at the forefront of interdisciplinary thinking about emotion and has stimulated many productive theoretical debates. The new editorial team are proud to join this tradition and excited about the prospects for extending the disciplinary reach of the journal and enhancing cross-disciplinary dialogue. We believe that the combined expertise of our triumvirate provides an ideal opportunity to capitalize on Emotion Review's strengths and to ensure that coverage of specialist topics remains accessible to readers coming from a wide range of knowledge bases.

As editors, we welcome rigorous and systematic theoretical contributions that bring conceptual clarity to a variety of topics– especially if they allow readers from different disciplines to appreciate their implications for their own research areas. We also welcome suggestions for topics for special sections of the journal and nominations of suitable editors, contributors and commentators who can provide the material to be included in those sections. Our overall aim is to encourage theoretically and empirically informed dialogue about issues that potentially benefit from a multidisciplinary perspective.

Incoming editorial team for *Emotion Review*
From January 2023, a team of three new Co-Editors in Chief will be dealing with submissions to the Society's journal, Emotion Review:

Professor Giovanna Colombetti

Giovanna Colombetti is Professor of Philosophy in the Department of Social and Political Sciences, Philosophy, and Anthropology at the University of Exeter, UK. At Exeter she also leads the Mind, Body, and Culture research strand within EGENIS (the Centre for the Study of the Life Sciences). She has a background in philosophy and cognitive science. Her research is primarily in the area of embodied and situated cognition, with a specific interest in emotion and other affective phenomena. Her approach is informed by a variety of perspectives—mainly, but not only, philosophy of mind and cognitive science, phenomenology, psychology, and, more recently, material culture studies. She is the author of The Feeling Body: Affective Science Meets the Enactive Mind (2014, MIT Press) and is currently working on a second manuscript about the affective role of material objects in our everyday life.

Professor Bradley J. Irish

Professor Brian Parkinson

Bradley J. Irish is an Associate Professor of English at Arizona State University, where his primary research focus is the literary and cultural history of emotion. He is the author of *Emotion in the Tudor Court: Literature, History, and Early Modern Feeling* (Northwestern, 2018) and *Shakespeare and Disgust: The History and Science of Early Modern Revulsion* (Bloomsbury, 2023), and the co-editor of *Positive Emotions in Early Modern Literature and Culture* (Manchester, 2021) and *The Routledge Companion to Literature and Emotion* (Routledge, 2022). He is also the creator of the online research database *Sources of Early Modern Emotion in English, 1500-1700,* available at www.earlymodernemotion.net.

Brian Parkinson is Professor of Social Psychology in the Department of Experimental Psychology at the University of Oxford, UK, where he leads the Emotion and Social Relations Research Group. His research focuses on the interpersonal and intragroup effects and functions of emotions and deploys a variety of methods including experience-sampling, observation of quasi-naturalistic interactions, and controlled experiments. He is the sole author of Ideas and Realities of Emotion (1995) and Heart to Heart: How Your Emotions Affect Other People (2019), and lead author of Changing Moods: The Psychology of Mood and Mood Regulation (1996, with Peter Totterdell, Rob Briner, and Shirley Reynolds) and Emotion in Social Relations: Cultural, Group, and Interpersonal Processes (2005, with Agneta Fischer and Tony Manstead). His previous editorial positions include being editor in chief of the British Journal of Social Psychology (2004-2009) and Associate Editor of Cognition and Emotion (1998-2003) and Transactions in Affective Computing (2009-2011). Since 2015, he has also been one of the series editors (with Maya Tamir and Danny Dukes) of the Cambridge University Press book series Studies in Emotion in Social Interaction.

ISRE Dissertation Award Finalists

2022 Dissertation Award: Recognition and Gratitude

Disa Sauter & Eric Walle

Co-chairs, 2022 ISRE Dissertation Award

Awards ceremony at 2022 ISRE Meeting, from L-R: Disa Sauter, Chelsea Rae Kelly, Erik Nook, Eric Walle

The ISRE dissertation award was originally initiated by the ISRE Early Career Researchers Section. Last year, we, as members of the ISRE board, took on the role of chairing the selection committee.

The 2022 ISRE Dissertation Award was open to ISRE members who received their PhD degree in 2019 or later, and who had not previously submitted their dissertation for this award. There were many excellent applications across a range of disciplines. This demonstrates the strength of the next generation of emotion scholars and is a testament to the enthusiasm for the study of emotion.

Each applicant submitted a 1000-word summary of their thesis that was scored independently by several ISRE members based on the criteria of criteria of scholarly excellence, degree of innovation and/or interdisciplinary nature, methodological appropriateness, and implications for theory, research, and society, as appropriate. Following an initial round of scoring, the review committee selected 3 finalists for the award. Each finalist then submitted their full dissertation, which was reviewed and scored by ISRE members from relevant disciplines.

Recognition

As announced at the 2022 ISRE Meeting in Los Angeles, we wish to congratulate the finalists:

- Chelsea Rae Kelly, PhD (Winner)
- Erik Nook, PhD (1st Runner-up)
- Meltem Yucel, PhD (2nd Runner-up)

In addition to being recognized at the 2022 ISRE Meeting, we are delighted to share a summary of each finalist's dissertation in this issue of Emotion Researcher.

Gratitude

Initiatives like the ISRE Dissertation Award are crucial for cultivating future excellence in the study of Emotion and ensuring that ISRE continues its prominence as the interdisciplinary and international society for researchers of emotion. Furthermore, advancing these aims would not be possible without the involvement and generosity of current ISRE members, many of whom helped support this award with their time and effort.

We wish to acknowledge and thank the reviewers of the initial applications: Daniel Dukes, Armindo Freitas-Magalhaes, Karen Gasper, Lotte Gerritsen, Steve Hitlin, Kostas Karpouzis, Priya Narayanan, Rainer Reisenzein, Christina Soriano, Jonathan Turner, Eric Vanman, and Eric Walle.

Additionally, we sincerely thank individuals who reviewed the full dissertations for each finalist: Karen Gasper, Lotte Gerritsen, Rainer Reisenzein, Jonathan Turner, and Eric Vanman.

The ISRE Executive Committee plans to continue the ISRE Dissertation Award every two years, as well as share the research of the finalists in a subsequent issue of Emotion Researchers.

Identity Sentiments and Emotion Signals in Contemporary Relationships: Modeling Relational Change through Affective Expectation

Chelsea Rae Kelly

Department of Sociology
The Catholic University of America

Language is the repository of culture, identity and behavior labels define social situations, and the identities that we enact in them—personally performed but culturally contextualized—motivate our behaviors. Throughout these social interactions, felt emotion serves as a barometer concerning the success or failure of our attempted identity affirmations. In other words, who we are affects how we feel; when we interact with other people, we use how we feel to tell us who we seem to be (in the moment) and whether we are being affirmed in who we are (fundamental nature). I was interested in investigating how we practically navigate through—and determining whether I could predict and model mechanisms within—the intricacies of these complex relationships.

In my dissertation, I utilized the tenets and quantitative rating metrics of affect control theory and affect control theory of self (formal computational theories of culture) to generate and test novel theoretical predictions concerning felt-emotion feedback. In a primary longitudinal dataset of respondents in an especially self-referential and other-contingent interaction space (selves in romantic relationship dyads), I gathered two significant EPA profile (quantitative ratings along three affective dimensions: evaluation, potency, and activity) measures of identity: *persona* (affective ratings of "myself as I really am") and *relational self* (affective ratings of "myself in this relationship"), and two significant EPA profile measures of emotion: *ideal emotion* ("the emotion I *should* feel in this relationship") and *actual emotion* ("the emotion I *actually* feel in this relationship"). I also computed *characteristic emotions* (theoretically predicted based on affirming Actor identity) and *structural emotions* (theoretically predicted based on attempting to affirm Actor and Object-Person identities) profiles for both personas and relational selves.

My two-wave survey sample of young adults (ages 18-22 years) in romantic relationships (N=93, 71% valid-case response rate) included relationship types of two distinct cultural frameworks: stable (defined, N=50) and mutable (undefined/ambiguous, a subset of relationships within hookup culture, N=43) romantic relationship dyads. Cultural framework (defined vs. undefined) served as a main predictor variable along with two hypothesis-derived computed predictor variables: *identity discrepancy* (squared Euclidian distance between persona and relational-self sentiment profiles), and *emotion discrepancy* (squared Euclidian distance between ideal emotion and actual emotion sentiment profiles). I posited that relationship dissolution might be partially explained by the emotional feedback information concerning respondents' attempted identity affirmations: when people get signals from their experienced emotions that are counter to those that would affirm the identities they wish to enact, they will act to rectify the situation by exercising their agency (i.e., redefine/discontinue the relationship generating the discordant signals). I posited that dissolution would be more likely in undefined relationships (as found in the literature) and that this would be partially predicted by identity-fueled emotion discrepancy.

Results from a series of two-sample t-tests, MANOVAs, regressions, and structural equation models statistically distinguished a new set of cultural identity labels (cultural meanings of ambiguous relationship labels (e.g., "*talking to*," "*having a thing*") are not interchangeable), validated several theoretical predictions (e.g., computed emotions significantly predicted reported expected and experienced emotions), and demonstrated that emotion information in the present significantly predicts relational behavior in the future (mediation through identity discrepancy→emotion discrepancy accounts for

a 17% reduction in the direct effect of relationship type on W2 relationship dissolution likelihood).

Additionally, personas better predict emotion expectations than do relational selves, and a robust standard errors OLS regression suggests a nearly 1-to-1 relationship (.95 (.32), p =.004, R2 =.47) in emotion discrepancy change as predicted by identity discrepancy magnitude. This implies that individuals are not self-selecting into undefined relationships because of negative self-views (on the contrary, average persona ratings were highly positive and statistically indistinguishable (p =.3617) by relationship type). Rather, seeing oneself as evaluatively less in an undefined relationship (p <.0001) is a product of holding that subculturally contextualized relational identity (defined participant personas and relational selves are statistically indistinguishable). Respondents attempt to affirm personas while being relational selves; when affirming relational self fails to affirm persona, disconfirming feedback via emotion discrepancy is the net result.

In both cultural frameworks, predicted values for respondents' structural emotions were higher than predicted values for characteristic emotions. This suggests an inherent relational optimism: as social creatures who crave connection with others, we expect things to be better together than when alone. This emotional optimism is validated in the experiences of defined, but not undefined, relationship participants: defined participants experience the emotional boost they expect, but undefined participants find their emotional hopes—tempered by cultural insight to be statistically significantly lower already—unrealized in their experiences. Thus, enacting the relational self in undefined relationships causes a gulf between the emotions one expects to feel (informed by persona) and the emotions one does feel (informed by relational self). Essentially, respondents ask themselves, "Am I myself when I'm with you?" When the emotion-supplied answer is "no" (more likely for undefined participants) agentic individuals act.

In different definitions of a situation, we enact different identities. As we do, we feel different emotions, and expect different behaviors from ourselves and others, depending upon which facet of ourselves we are being at any given time. We and our identities are also

Professor Chelsea Kelly

embedded in specific cultures and subcultures; these too guide expectations, feelings, and behaviors. Relationships, and the relational identities associated with them, add another layer of complexity—how one feels as the same identity will vary depending upon with whom that identity is interacting. However, harnessing quantitative measures of emotion allows one to model these processes well. This research showcases the negative effects of an emotion-signaled disruption in the sense of synchrony for identities in relationships, provides an explanatory pathway for likelihood of dyadic relationship dissolution, and empirically demonstrates that emotion information in the present can significantly predict relationship behavior in the future. Because the theoretical underpinnings of these tests are formalized (not necessarily confined to the romance realm in which they were tested), results may generalize across social institutions. If so, measuring emotion discrepancy in the present could provide a practical diagnostic metric signal of those at increased mental health risk.

Linguistic Distancing and Emotion Regulation: Theoretical, Developmental, and Translational Perspectives

Erik Nook

Department of Psychology
Princeton University

Psychological disorders, especially internalizing disorders like anxiety and depression, cause immense human and economic burden across the globe. Prior work shows that internalizing disorders are characterized by perturbations in emotion regulation (i.e., the strategies people use to change how they feel), with excessive use of maladaptive strategies that reduce short-term distress but maintain long-term impairment and insufficient use of adaptive strategies that allow individuals to escape these cycles of impairment. Developing tools that identify poor emotion regulation and improve this critical affective skill could help address the global burden of psychopathology.

My dissertation approaches this problem by focusing on a potential linguistic signature of effective emotion regulation, called *linguistic distancing*. People can use several strategies to regulate their emotions, including "psychological distancing," in which one thinks about negative situations as separated or removed from oneself, for instance by replaying memories from a third-person perspective. Linguistic distancing involves using *language* to achieve this psychological shift, for instance by eliminating use of first-person singular pronouns or present-tense verbs. My dissertation tests (i) whether this linguistic strategy is indeed associated with effective emotion regulation, (ii) whether use of linguistic distance varies across age, and (iii) the potential translational value of linguistic distancing in assessing symptom severity and treatment outcomes in psychotherapy.

The general introduction of the dissertation integrates theoretical and empirical research supporting relations between linguistic distancing, emotion regulation, and mental health. I review both foundational and contemporary studies on these topics, arriving at a set of clear hypotheses for the dissertation as a whole. For example, I draw upon neuroscientific perspectives on the neural representation of psychological distance as evidence for the notion that shifting pronoun and verb use should facilitate more distant psychological representations and consequently down-regulate negative affect.

Paper 1 (Nook, Schleider, & Somerville, 2017, *Journal of Experimental Psychology: General*) then reports on two studies demonstrating that linguistic distancing shares a bidirectional relationship with emotion regulation: Linguistic distancing both tracks successful cognitive reappraisal and can be used to down-regulate negative affect. The first of these studies ($N = 107$) and its replication study ($N = 121$) asked participants to transcribe their thoughts and feelings while either responding naturally to aversive images or while using cognitive reappraisal to regulate their reactions to these images. Linguistic analyses revealed that participants spontaneously used fewer first-person singular pronouns and present-tense verbs (established markers of linguistic distancing) when regulating their emotions. Further, we found that how strongly one distanced one's language when reappraising correlated with regulatory success. The second study ($N = 227$) and its replication ($N = 247$) reversed this relationship and showed that merely distancing one's language (i.e., asking participants to write about negative images without using the word "I" or present-tense verbs) spontaneously reduced their negative affect. Indeed, participants reported feeling less negative affect when they made these subtle linguistic shifts. Taken together, this paper provides replicable evidence that linguistic distancing can both *measure* and *manipulate* emotion regulation: Greater spontaneous linguistic distancing tracks stronger reappraisal success, and merely distancing one's language can down-regulate emotion.

Paper 2 (Nook*, Vidal-Bustamante*, Cho, & Somerville, 2020, *Emotion*) takes a

developmental perspective, asking whether the strength of linguistic distancing during emotion regulation might vary across childhood, adolescence, or young adulthood. In this preregistered study ($N = 112$), participants aged 10-23 completed the cognitive reappraisal task of Paper 1. Although we once again found that linguistic distancing increased during reappraisal and correlated with successful regulation, we did not find that either linguistic distancing or reappraisal success varied across age. As such, even as early as age 10, spontaneous linguistic distancing tracks successful emotion regulation.

Paper 3 (Nook, Hull, Nock, & Somerville, 2022, *Proceedings of the National Academy of Sciences*) takes a translational perspective, providing evidence that linguistic distance is related to the severity of clients' internalizing symptoms and their treatment outcomes in a large real-world corpus of therapy transcripts. We computed measures of linguistic distancing within a corpus of > 1.2 million text samples from 6,229 clients as they used a messaging-based psychotherapy service. We split this sample into exploratory ($N = 3,729$) and validation ($N = 2,500$) subsets, and preregistered all analyses before replicating them in the validation dataset. We found that internalizing symptoms (i.e., depression and anxiety) decreased over time in therapy and that linguistic distancing correlated with symptom severity at both within-person and between-person levels. This means that patients reported fewer internalizing symptoms on months in which they used higher linguistic distance. As such, not only does linguistic distance serve as a measure of emotion regulation in the lab, it also assesses actual mental health symptoms in real-world therapy transcripts.

Finally, the general discussion synthesizes results from this dissertation to articulate the basic and translational impacts of research on linguistic distancing. This leads to the formulation of an overarching theoretical model in which taking a distanced perspective on one's habitual thoughts, feelings, and behaviors might be a key psychological process in fostering mental health. Language may be one path for both measuring how strongly individuals habitually take this distanced perspective and a tool for facilitating this shift. Potential future directions

Professor Erik Nook

for testing this model and addressing open questions raised by this dissertation are discussed.

Evidence from this dissertation supports the notion that linguistic distance is a marker of effective emotion regulation and mental health across childhood, adolescence, and young adulthood. The studies consistently use Open Science practices of preregistration, replication, and data sharing to add certainty and transparency to results. My work is also intentionally interdisciplinary, integrating tools from affective science, developmental science, psycholinguistics, and clinical psychology. This approach yields findings that I believe address open questions in the field, extend existing theory, and have the potential to stimulate future applied research that uses linguistic distancing as a tool for detecting and intervening on psychological symptoms at a large scale (e.g., online or in ecological momentary text sampling). In all, I hope that this line of research meaningfully contributes to scientific understanding of emotion and germinates additional work that can foster emotional health.

Feature article: Emotion & Feelings

"No fair!": An investigation of children's development of fairness

Meltem Yucel

Department of Psychology and Neuroscience
Duke University

Living in communities is not easy; to co-exist successfully we must understand and follow certain norms or risk being shunned by our groups. Such norm understanding begins to emerge remarkably early in life[1–3]. Norms aimed at preserving the rights and welfare of others belong to the moral domain; norms aimed at preserving the social coordination of groups belong to the conventional domain. At around three years of age, young children start to distinguish moral from conventional norms[4,5] and even show differential arousal to moral violations (e.g., destruction of property) than conventional violations (e.g., playing a game wrong)[6].

Some classic developmental theories in psychology have assumed that norms about fairness fall in the moral domain, the reasoning being that issues of fairness are naturally tied to justice, rights, and welfare[7–11]. For example, moral philosophers such as Rawls[12,13] have positioned justice as the *fundamental* moral concern. Therefore, in research and theorizing about norms, fairness has typically been classified at the outset with other moral norms such as those concerning physical or property harm[5]. Yet, converging research across economics and psychology also shows that children and adults do not hold a strict view of fairness, but rather perceive the acceptability of unfairness on a continuum[14–19]. This stands in contrast to children's and adults' views on morality, which are generally less variable and less flexible. Therefore, the current literature does not support the assumption that fairness falls within the moral domain.

Understanding how children perceive fairness norms could also help us think more critically about the current state of inequality in the world. Income inequality in the U.S. has worsened over the past 50 years[20]. Yet, across the political aisle, people are divided on how fair they view this resource distribution[21]. Those who perceive the status quo as a violation of the norm are more sensitive to the harm caused by unfairness, and those who see no violation are less sensitive to the harm/affect[22,23]. Although violations that involve harm to others are perceived to be moral violations[24–26], much less is known about how perceptions of harm/affect may motivate people's responses to fairness violations[22].

This dissertation provides the first explicit empirical study of these competing perspectives. I focus here on two studies (Studies 3 and 5a), that aim to characterize children's and adults' evaluations of unfairness and the role perceived harm in fairness norm evaluations.

Methods

The full procedure for Study 3 (children) and 5a (adults) can be found in Figure 1.

In Study 3 (*N*=66 4-year-olds, *M*=53.4 months, 29 girls) and Study 5a (*N*=211 adults, *M*=19.2 years, 141 female) participants were randomly assigned to Baseline or Harm Salience conditions. Harm was manipulated only for the Fairness transgression type (see Fig. 1). In a randomized order, participants saw a total of 16 videos depicting three sets of transgressions (4 Moral, 4 Conventional, and 4 Fairness) and a set of control actions (4 Control). Participants were asked to evaluate the scenario using a 9-point scale. Then, participants were asked to group fairness vignettes with moral or conventional vignettes.

Results

In Study 3, there was a significant main effect of condition for fairness evaluations, such that children in the Harm Salience condition evaluated unfairness more negatively than

children in the Baseline condition, $t(230)=2.18$, $p=.030$ (Fig. 2A). Children in the Baseline condition rated the seriousness of transgressions as follows: Moral>Fairness=Conventional>Control. Children in the Harm Salience condition the seriousness of transgressions as follows: Moral=Fairness= Conventional>Control.

In Study 5a, adults in the Harm Salience condition evaluated unfairness marginally more seriously than those in the Baseline condition, $t(690)=1.90$, $p=.057$ (Fig. 2B). Although this difference was not significant, it was in the predicted direction. Adult participants in both conditions evaluated the seriousness of transgressions as follows: Moral>Fairness>Conventional>Control.

Discussion and Summary

Fairness norms have been assumed to be part of the moral domain, despite no conclusive evidence in support of that claim. This dissertation sought to challenge our understanding of fairness norms. I reasoned that how we conceptualize fairness will, in turn, affect how we respond to it. For example, if we perceive unfairness to be similar to harming others, we may be more likely to intervene and rectify it. However, if we perceive unfairness to be similar to wearing pajamas to school, we may not perceive it as a serious violation or rectify the harm done to the disadvantaged individual (or group). These studies explain why children – and even adults – may not evaluate unfair distributions as negatively as other moral violations, namely, the indirect and less

Meltem Yucel, PhD

perceptible harm caused by unfairness. Therefore, it might be better to examine the moral/conventional distinction not from a domain theory perspective but as a continuum.

Another aim of the current investigation was to examine the role harm/affect plays in children's and adults' moralization of fairness norms. The results suggest that, as hypothesized, emphasizing harmful outcomes of unfairness shifts judgments in the moral direction. Although this was not the focus of the current set of studies, using the same logic, we may also hypothesize
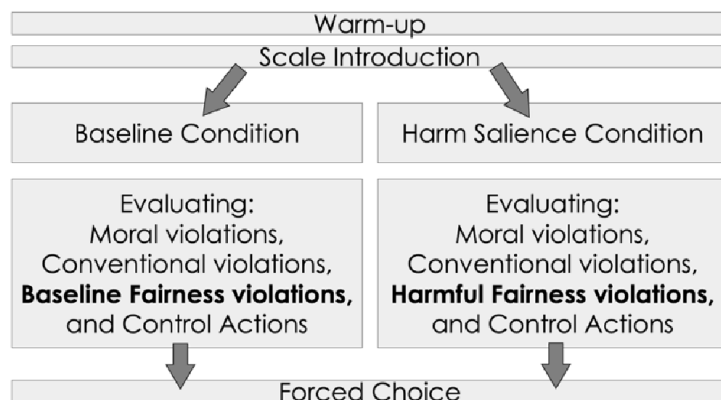
Figure 1. In Studies 3 and 5a, children and adults were randomly assigned to Baseline and Harm Salience conditions. In the Baseline condition, the four Fairness vignettes did not emphasize the harmful outcome (i.e., "This child took more chalk than this other child"). In the Harm Salience condition, the four Fairness vignettes emphasized the harmful outcome (i.e., "This child took more chalk than this other child, and this other child was sad because he/she got less chalk").
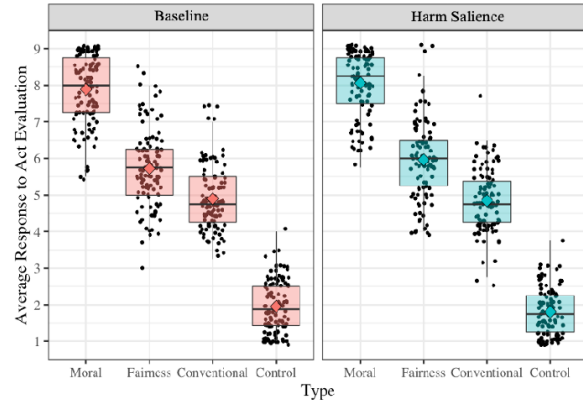
A.
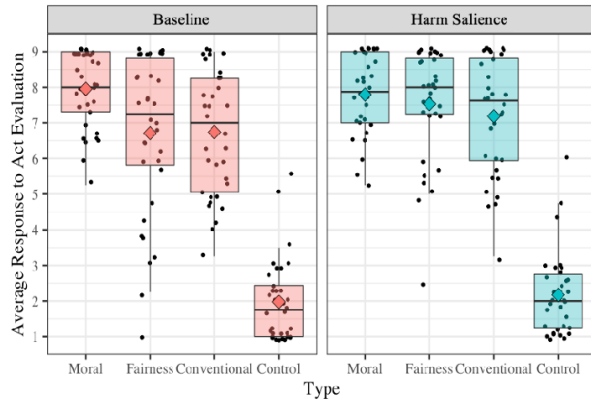
B.

Figure 2. A) Children's and B) adults' responses to act evaluation question by condition (ranging from 1=very, very nice to 9=very, very bad).

that minimizing harm would shift transgressions to be less moral [28]. These findings are consistent with the evolutionary accounts, such that harm salience may intuitively allow us to distinguish norms that are more important for our welfare and lead to fair distributions.

The studies presented here seek to break new ground by using experimental methods to establish how children's understanding of fairness changes and compares to moral or conventional norms. Understanding how children perceive, when children perceive, and why children perceive fairness as a moral or conventional norm, could help us better understand how fairness is conceptualized. The findings have the potential to inform and influence educational programming—including school curricula designed for specific developmental periods—to socialize and maintain fairness concerns from early in development.

Children are sensitive to (un)fair distributions of resources. These studies explain why children – and even adults – may not evaluate unfair distributions as negatively as other moral violations, namely, the indirect and less perceptible harm caused by unfairness. They suggest a potential explanation for why resource inequality is widely accepted in many societies. They also point to a potential solution: Emphasizing and making explicit the harm caused by unfairness.

References

1. Smetana, J. G., Jambon, M. & Ball, C. The social domain approach to children's moral and social judgments. in *Handbook of moral development (2nd ed.)* (eds. Killen, M. & Smetana, J. G.) 23–45 (2014).

2. Turiel, E. Social regulations and domains of social concepts. *New Dir. Child Adolesc. Dev.* **1978**, 45–74 (1978).

3. Yucel, M. & Vaish, A. Young children tattle to enforce moral norms. *Soc. Dev.* **27**, 924–936 (2018).

4. Ball, C. L., Smetana, J. G. & Sturge-Apple, M. L. Following my head and my heart: Integrating preschoolers' empathy, theory of mind, and moral judgments. *Child Dev.* **88**, 597–611 (2017).

5. Nucci, L. P. & Turiel, E. Social interactions and the development of social concepts in preschool children. *Child Dev.* **49**, 400–407 (1978).

6. Yucel, M., Hepach, R. & Vaish, A. Young children and adults show differential arousal to moral and conventional transgressions. *Front. Psychol.* **11**, (2020).

7. Turiel, E. *The development of social knowledge: Morality and convention.* (Cambridge University Press, 1983).

8. Turiel, E., Killen, M. & Helwig, C. C. Morality: Its structure, functions, and vagaries. in *The emergence of morality in*

young children (ed. Kagan, J.) 155–243 (University of Chicago Press, 1987).

9. Smetana, J. G. & Ball, C. L. Young children's moral judgments, justifications, and emotion attributions in peer relationship contexts. *Child Dev.* **89**, 2245–2263 (2018).

10. Damon, W. Measurement and Social Development. *Couns. Psychol.* **6**, 13–15 (1977).

11. Piaget, J. *The moral judgment of the child. The Moral Judgment of the Child* (1932).

12. Rawls, J. *A theory of Justice*. (Oxford University Press, 1999).

13. Rawls, J. Some Reasons for the Maximin Criterion. *Am. Econ. Rev.* **64**, 141–146 (1974).

14. Fehr, E. & Schmidt, K. M. A theory of fairness, competition, and cooperation. *Q. J. Econ.* 271–296 (1999) doi:10.2307/j.ctvcm4j8j.14.

15. Fehr, E. & Gächter, S. Cooperation and punishment in public goods experiments. *Am. Econ. Rev.* **90**, 980–994 (2000).

16. Adams, J. S. Towards an understanding of inequity. *J. Abnorm. Soc. Psychol.* **67**, 422–436 (1963).

17. Hochman, G., Ayal, S. & Ariely, D. Fairness requires deliberation: The primacy of economic over social considerations. *Front. Psychol.* **6**, 1–7 (2015).

18. Güth, W., Schmittberger, R. & Schwarze, B. An experimental analysis of ultimatum bargaining. *J. Econ. Behav. Organ.* **3**, 367–388 (1982).

19. Sanfey, A. G., Rilling, J. K., Aronson, J. A., Nystrom, L. E. & Cohen, J. D. The neural basis of economic decision-making in the Ultimatum Game. *Science (80-.)*. **300**, 1755–1758 (2003).

20. U.S. Census Bureau. *Income and poverty in the United States: 2018. Current Population Reports* https://www.census.gov/library/publications/2019/demo/p60-266.html (2018).

21. Pew Research Center. *2018 midterm voters: Issues and political values*. https://www.people-press.org/wp-content/uploads/sites/4/2018/10/Values-for-release.pdf (2018).

22. Mikołajczak, G. & Becker, J. C. What is (un)fair? Political ideology and collective action. *J. Soc. Polit. Psychol.* (2019).

23. Dietze, P. & Craig, M. A. Framing economic inequality and policy as group disadvantages (versus group advantages) spurs support for action. *Nat. Hum. Behav.* (2021) doi:10.1038/s41562-020-00988-4.

24. Schein, C. & Gray, K. The theory of dyadic morality: Reinventing moral judgment by redefining harm. *Personal. Soc. Psychol. Rev.* **22**, 32–70 (2018).

25. Gray, K., Young, L. & Waytz, A. Mind perception is the essence of morality. *Psychol. Inq.* **23**, 101–124 (2012).

26. Gray, K., Waytz, A. & Young, L. The moral dyad: A fundamental template unifying moral judgment. *Psychol. Inq.* **23**, 206–215 (2012).

27. Holm, S. A simple sequentially rejective multiple test procedure. *Scand. J. Stat.* **6**, 65–70 (1978).

28. Zelazo, P. D., Helwig, C. C. & Lau, A. Intention, act, and outcome in behavioral prediction and moral judgment. *Child Dev.* **67**, 2478–2492 (1996).