QUENTIN ANDRE, Ph.D.

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ACADEMIC POSITIONS

Assistant Professor of Marketing, *University of Colorado Boulder*   2020 – Present
Assistant Professor of Marketing, *Rotterdam School of Management*   2018 – 2020

EDUCATION

PhD, Marketing, *INSEAD Europe Campus*, cum laude   2018
MSc, Managerial and Financial Economics, *HEC Paris*   2012
BA, Management, *HEC Paris*   2009
BA, History of Arts, *Sorbonne Université*   2009

RESEARCH INTERESTS

Numerical and Managerial Cognition, Probabilistic Reasoning, Research and Statistical Methods

PUBLICATIONS

Paolacci, Gabriele and Quentin André (2023), "Probabilistic Outcomes Are Valued Less in Expectation, Even Conditional on Their Realization", *Management Science*
Most theories of decision-making under risk assume that payoffs and probabilities are separable: In the context of a lottery, the subjective value of a prospective outcome (the payoff) is assumed to be independent of the likelihood that the outcome will occur (the probability). In violation of this assumption, we present 8 experiments showing that people anticipate less utility from uncertain outcomes than from certain outcomes. The devaluation of uncertain outcomes is observed across different measures of utility (willingness to spend money or time; choice between different options), different populations (student and online samples), and different manipulations of uncertainty. We show that this result does not simply reflect a misunderstanding of the instructions, or people's aversion towards "weird" transaction with unexplained features. We highlight the implications of this phenomenon for empirical investigations of risk preferences, and conclude with a discussion of the psychological mechanisms that might drive the devaluation of uncertain outcomes in lottery contexts.

André, Quentin, Nicholas Reinholtz, and Bart de Langhe (2022), "Can Consumers Learn Price Dispersion? Evidence for Dispersion Spillover Across Categories", *Journal of Consumer Research*

This paper examines consumers' ability to form accurate beliefs about the minimum, the maximum, and the overall variability of prices for multiple product categories. Eight experiments provide evidence for a novel phenomenon we call dispersion spillover: Consumers tend to overestimate price dispersion in a category after encountering another category in which prices are more dispersed. This dispersion spillover is consequential: It influences the likelihood that consumers search for (and find) better prices and offers, and how much consumers bid in auctions. We disentangle two cognitive processes that might underlie dispersion spillover, and show that it does not simply reflect the inappropriate activation of prices from other categories. Instead, it appears that consumers also form "intuitive statistics" of dispersion: Summary representations that encode the dispersion of prices in the environment, but that are insufficiently category-specific.

André, Quentin (2022) "Outlier Exclusion Procedures Must be Blind to the Researcher's Hypothesis", *Journal of Experimental Psychology: General*

When researchers choose to identify and exclude outliers from their data, should they do so across all the data, or within experimental conditions? Both methods are widely used, and common data visualization techniques suggest that outliers should be excluded at the condition-level. In this paper, I highlight that removing outliers by condition runs against the logic of hypothesis testing. I show in simulated experiments, and in a re-analysis of existing data, that by-condition exclusions can result in false-positive rates as high as 43%. I finally demonstrate that by-condition exclusions are a specific case of a more general issue: Any outlier exclusion procedure that is not blind to the hypothesis that researchers want to test may result in inflated Type I errors. I conclude by offering best practices and recommendations for excluding outliers.

André, Quentin and Bart de Langhe (2022), "How (Not) To Test Theory with Data: Illustrations from Walasek, Mullett and Stewart", *Journal of Experimental Psychology: General*

In a response to André and de Langhe (2021), Walasek, Mullett and Stewart (2020) defend the link between decision by sampling and loss aversion. We take their response as an opportunity to emphasize three guiding principles when testing theory with data: 1) Look for data that are uniquely predicted by the theory, 2) Do not ignore data that contradict the theory, and 3) If an experiment is flawed, fix it. In light of these principles, we do not believe that Walasek, Mullett, and Stewart (2020) provide new insights about the origin and stability of loss aversion.

André, Quentin and Bart de Langhe (2022), "No Evidence for Loss Aversion Disappearance and Reversal in Walasek and Stewart (2015)", *Journal of Experimental Psychology: General*

In an influential article published in the Journal of Experimental Psychology: General, Walasek and Stewart (2015) test an implication of decision by sampling theory: Loss aversion can disappear, and even reverse, depending on the distribution of gains and losses people have encountered. In this article, we show that the results reported in Walasek and Stewart (2015)

emerge because the estimates of loss aversion are computed on different lotteries in different conditions. After correcting this error, we do not see evidence that loss aversion is shaped by the distribution of gains and losses that people have encountered.

André, Quentin, Pierre Chandon, and Kelly H. Haws (2019), "Healthy Through Presence or Absence, Nature or Science?: A Framework for Understanding Front-of-Package Food Claims", *Journal of Public Policy and Marketing*

Consumers intuitively categorize front-of-packaging claims displayed on food into 4 broad categories: (1) Claims about "removing negatives," (e.g., "Low Fat"), (2) claims about "adding positives," (e.g., "High vitamins"), (3) claims about "not adding negatives" (e.g., "GMO-free"), and (4) claims about "not removing positives" (e.g., "Unprocessed"). Each type of claim is associated with different beliefs about the healthiness, tastiness, and dieting properties of the food.

André, Quentin, Ziv Carmon, Klaus Wertenbroch, Alia Crum, Douglas Frank, William Goldstein, Joel Huber, Leaf van Boven, Bernd Weber and Haiyang Yang (2018), "Consumer Choice and Autonomy in the Age of Artificial Intelligence and Big Data", *Customer Needs and Solutions*

Drawing on diverse perspectives from marketing, economics, philosophy, neuroscience, and psychology, we explore how consumers' sense of autonomy in making choices affects their well-being. We discuss how new technologies may enhance or diminish consumers' perceptions of being in control of their choices and how feelings of control (or lack thereof) affect consumers' well-being. We suggest avenues for future research in the domain of choice, well-being, and consumer welfare.

WORKING PAPERS

André, Quentin and Nicholas Reinholtz, "Reducing Participant Costs Without Sacrificing Statistical Power in Consumer Research: An Introduction to Pre-Registered Interim Analysis Designs (PRIADs)" *(second round revision submitted at the Journal of Consumer Research)*

The difficulty of determining how many observations to collect is a source of inefficiency in consumer behavior research. Collecting too few observations means having insufficient statistical power, collecting too many means wasting valuable resources. Group sequential designs, which allow data to be collected and tested in batches, could offer a remedy: However, they are scarcely used in consumer behavior research, probably owing to low awareness and perceived complexity. This manuscript offers a tutorial on group sequential designs and introduces Pre-Registered Interim Analysis Designs (PRIADs): A practical five-step procedure to facilitate the adoption of these designs in marketing. Our proposal offers clear guidelines and introduces a companion app to help researchers use sequential analysis. We highlight key benefits of PRIADs: They facilitate sample size decisions, allow researchers to achieve a desired level of statistical power with a smaller number of observations, and help them conduct more efficient pilot studies. We validate this cost-saving potential through a re-analysis of 104 studies published in the Journal of Consumer Research, which shows that using PRIADs would have

saved researchers between 32% and 43% of the participants' costs. We conclude with a discussion of limitations and possible alternatives to PRIADs.

André, Quentin and Bart de Langhe, "Everyone's a Genius in a Bull Market: How Exogenous Trends Lead to Overconfidence" *(under review at Management Science)*
To achieve success, managers and executives must develop an accurate understanding of how predictive business cues (e.g., the features of advertising campaigns) relate to desirable outcomes (e.g., their return on ad spend). One of the factors that complicate learning is the presence of exogenous trends: Improvement or worsening in the quality of the outcomes over time, independently of the decision makers' actions (e.g., driven by business cycles). We offer a learning model describing how these positive exogenous trends would shape stronger yet less accurate beliefs in how cues relate to outcomes. Specifically, we show that since decision makers evaluate the quality of a focal outcome by comparing it to its historical performance, and since decisions makers tend to learn from alternatives they believe will result in better outcomes, any exogenous factor that improves outcomes over time will appear to "validate" the decision makers' current beliefs about cue-outcome relationships, regardless of their accuracy. We support the predictions of this model through interactive cue-learning experiments involving diverse participants, including simulated agents, MTurk workers, students, and senior executives.

André, Quentin, Bart de Langhe, and Philip Fernbach, "Hipsters and Hillbillies: The Perils of Personas" *(reject and resubmit at the Journal of Marketing)*
Market segmentation entails a number of data-driven steps (e.g., choosing variables, collecting data, identifying clusters in the data, summarizing their properties), which are then followed by sense-making efforts through statistical segments are interpreted and understood. We find that two common sense-making techniques – choosing descriptive segment names and generating "personas" – on people's perception of consumer segments. lead people to amplify the differences between segments ("amplification") and to compress the differences within segments ("compression"). We discuss the implication of our results for marketing practice and suggest possible interventions to mitigate these biases.

Naborn, Jay, Quentin André, Hannah Perfecto, Sam Hirshman, and Nicholas Reinholtz, "Would you Buy a South-Pointing Compass? People Underestimate the Informativeness of Negatively Correlated Preferences" *(six studies collected, first draft in preparation)*
If you had to decide about which movie to watch, which product to purchase, or which policy to vote for, would you rather ask a friend you systematically disagree with, or one you often agree with? Our experiments show that people systematically undervalue "south-pointing compasses": Sources of information that have a strong negative correlation with their own preferences. Instead, they prefer to rely on information that is weakly correlated with their own preferences, and therefore less informative. We show that this bias is robust to different paradigms (decisions from description and decisions from experience), different decision domains (political choices, movie choices, and abstract stimuli), and different tasks (accept and reject).

André, Quentin, Nicholas Reinholtz, and John G. Lynch Jr., "Restricted-Use Funds and Budgeting Decisions" *(on hold)*

How do consumers budget when a part of their income is denominated in a category-restricted resource (e.g., food stamps)? Building on the mental accounting and categorization literature, we hypothesized that people endowed with a category-restricted resource would be averse to spending their unrestricted money on products of this category. To test this hypothesis, we developed a multi-round, interactive budgeting simulation. We find that people endowed with a food-restricted resource end up budgeting less on food than people who received an equivalent amount in unrestricted money.

CONFERENCES AND INVITED PRESENTATIONS

1. The Wharton School, University of Pennsylvania, Pennsylvania, March 2023
   "Everyone's a Genius in a Bull Market: How Exogenous Trends Foster Illusory Learning" (Invited Presentation)
2. Society for Personality & Social Psychology – JDM Preconference, Georgia, February 2023
   "People Underestimate the Informativeness of Negatively Correlated Preferences" (Invited Presentation)
3. Association for Consumer Research Conference, Colorado, October 2022
   "People Underestimate the Informativeness of Negatively Correlated Preferences" (Session Chair)
4. HEC Montreal, Canada, April 2022
   "A Critical Perspective on Effect Sizes in Marketing" (Invited Presentation)
5. University of Bath, United Kingdom, March 2022
   "People Underestimate the Informativeness of Negatively Correlated Preferences" (Invited Presentation)
6. Booth School of Business, University of Chicago, Illinois, February 2022
   "Hipsters and Hillbillies: The Perils of Personas" (Invited Presentation)
7. Association for Consumer Research Conference, Online, October 2021
   "Outlier Exclusion Procedures Must be Blind to the Researchers' Hypothesis" (Session Chair)
8. Sauder School of Business, University of British Columbia, Canada, April 2021
   "Hipsters and Hillbillies: The Perils of Personas" (Invited Presentation)
9. The Data Colada Seminar Series, Online, February 2021
   "Can Consumers Learn Price Dispersion?" (Invited Presentation, video link: https://www.youtube.com/watch?v=KhqY8D-8BLM)
10. Society for Consumer Psychology Conference, California, March 2020
    "Slop(p)y Learning: When Market Trends Foster a False Sense of Understanding" (Session Paper)
11. Bocconi University, Italy, November 2019
    "Slop(p)y Learning: When Market Trends Foster a False Sense of Understanding" (Invited Presentation)
12. Boulder Summer Conference on Consumer Financial Decision Making, Colorado, May 2018

"Restricted-Use Funds and Budgeting Decisions" (Paper)

13. Rotterdam School of Management, The Netherlands, February 2018
    "Restricted-Use Funds and Budgeting Decisions" (Invited Presentation)
14. ESADE, Barcelona, Spain, February 2018
    "Restricted-Use Funds and Budgeting Decisions" (Invited Presentation)
15. Society for Judgement and Decision-Making Annual Meeting, Canada, November 2017
    *"Can Food Stamps Reduce Food Consumption? The Unintended Consequences of
      Restricted-Use Funds on Budgeting Decisions" (Paper)*
    *"Variance Spillover: Consumers Underestimate Differences in Price Dispersion"
      (Paper)*
16. Association for Consumer Research Conference, San Diego, California, USA, October 2017
    *"Can Food Stamps Reduce Food Consumption? The Unintended Consequences of
      Restricted-Use Funds on Budgeting Decisions" (Session Chair)*
    *"Variance Spillover: Consumers Underestimate Differences in Price Dispersion"
      (Session Chair)*
17. Symposium on Meaning and Alienation in Consumption, Germany, January 2017
    *"The Value of Meaning: How Job Satisfaction Affects Consumers' Perception and
      Use of their Earnings" (Invited Presentation)*
18. Association for Consumer Research Conference, Germany, October 2016
    *"The Value of Meaning: How Job Satisfaction Affects Consumers' Perception and
      Use of their Earnings" (Session Chair)*
    *"Removing This (or not), Adding That (or not): A Taxonomy of 'Healthy' Food
      Claims" (Session Paper)*
19. Invitational Choice Symposium, Lake Louise, Canada, May 2016
    "When to Choose" (Discussant)
20. European Marketing Academy Conference, Norway, May 2016
    *"The Value of Meaning: How Job Satisfaction Affects Consumers' Perception and
      Use of their Earnings" (Paper)*
21. Society for Consumer Psychology Conference, Florida, February 2016
    *"Removing This (or not), Adding That (or not): A Taxonomy of 'Healthy' Food
      Claims" (Session Paper)*
22. Open Course Initiative at INSEAD, France, March 2015
    *"Happiness in a Consumerist World: What Marketing Research Can Teach Us About
      Well-Being"*
23. Transformative Consumer Research Conference (ACR), France, May 2013
    "Low-Income Consumers" (Discussant)

SOFTWARE AND STATISTICAL LIBRARIES

pypcurve: A library for p-curve analysis in Python
    *A Python implementation of Simonsohn, Simmons and Nelson's 'p-curve', available at
    https://quentinandre.net/software/pypcurve/*

"Investment Game"

An interactive experimental paradigm showing how exogenous trends foster illusory learning, developed for André and de Langhe (working paper). Written in React, Redux and Flask. Used to illustrate learning traps in MBA and EMBA classes at ESADE, KU Leuven, RSM, and CU Boulder.

distBuilder: A Javascript library to add distribution builders to online and offline experiments

Open-source implementation of the distribution builder method described in Goldstein and Rothschild (2014). Documentation and source code available at https://quentinandre.github.io/softwares/distributionbuilder/ (includes a ready-to-use Qualtrics implementation)

pyprocessmacro: A Python 3 library to estimate moderation, mediation, and conditional processes

Open-source rewrite of Andrew F. Hayes' "Process Macro" in Python Documentation and source code available at https://quentinandre.net/software/pyprocessmacro/

pypsrite: A Python 3 re-implementation of 'Sample Parameter Reconstruction via Iterative TEchniques (SPRITE)' (Heathers et al. 2018)

Documentation and source code available at https://github.com/QuentinAndre/pysprite/

affectiveSamplerJS: A Javascript library to record people's affective reactions to audio/video sequences

Documentation and source code available at https://github.com/QuentinAndre/AffectiveSamplerJS/

wordSearchJS: A Javascript library to add word search tasks to online and offline experiments

Documentation and source code available at https://github.com/QuentinAndre/WordSearchJS/

HONORS AND GRANTS

Fellow, 2016 AMA-Sheth Doctoral Consortium, Mendoza College of Business, University of Notre Dame, Indiana
Winner of the ADL Partner PhD Award (€ 11,250)
Full tuition scholarship, INSEAD, 2013-2018

TEACHING

Undergraduate and Graduate Level
 Marketing Management (MBA Core), 2020-Present, CU Boulder
 Brand Development (M.Sc.), 2019-2020, Rotterdam School of Management

Ph.D. Seminars
 Experimental Methods, 2019-2020, Rotterdam School of Management

Teaching Assistant
 Brand Management (MBA Elective), Pierre Chandon, 2015-2017

Adjunct Lecturer Positions
 Preparation to Business School Interviews, IPECOM Paris, 2008-2013
 History of Economic Theory, IPECOM Paris, 2008-2010

ACADEMIC SERVICE

Editorial Review Board Membership
 Marketing Letters
 Journal of Consumer Psychology

Reviewer Service
 Behavioral Research Methods
 International Journal of Research in Marketing
 Journal of the Academy of Marketing Science
 Journal of Cognitive Psychology
 Journal of Consumer Psychology
 Journal of Consumer Research
 Journal of Experimental Psychology: General
 Journal of Public Policy and Marketing
 Journal of Marketing
 Judgment and Decision-Making
 Social Psychology and Personality Science
 Management Science
 Marketing Letters
 Nature Communications
 Organizational Behavior and Human Decision Processes

Service to the School
 Member of the Ph.D. Committee, CU Boulder
 Member of the Masters' Curriculum and Policy Committee (MCPC), CU Boulder
 Ph.D. Student Representative for the Marketing Department, INSEAD
 Ph.D. Alumni Reunion Organization Committee, INSEAD

OTHER SKILLS

Python (Web scraping, data wrangling and visualization, statistical analysis, natural language processing, Bayesian data analysis)

R (Statistical analysis, data wrangling and visualization, Shiny)

Front-End (React, Redux, TypeScript) and Back-End (Flask, SQLAlchemy) Web Development

Git and GitHub (GitHub profile: https://github.com/QuentinAndre/)

Data Forensics (Hilgard ratio: 1.57)