Program

of the 8th Workshop for Doctoral Students
in Experimental Psychology

July 25 to 28
Mannheim, Germany

8th A-Dok 2019

Program

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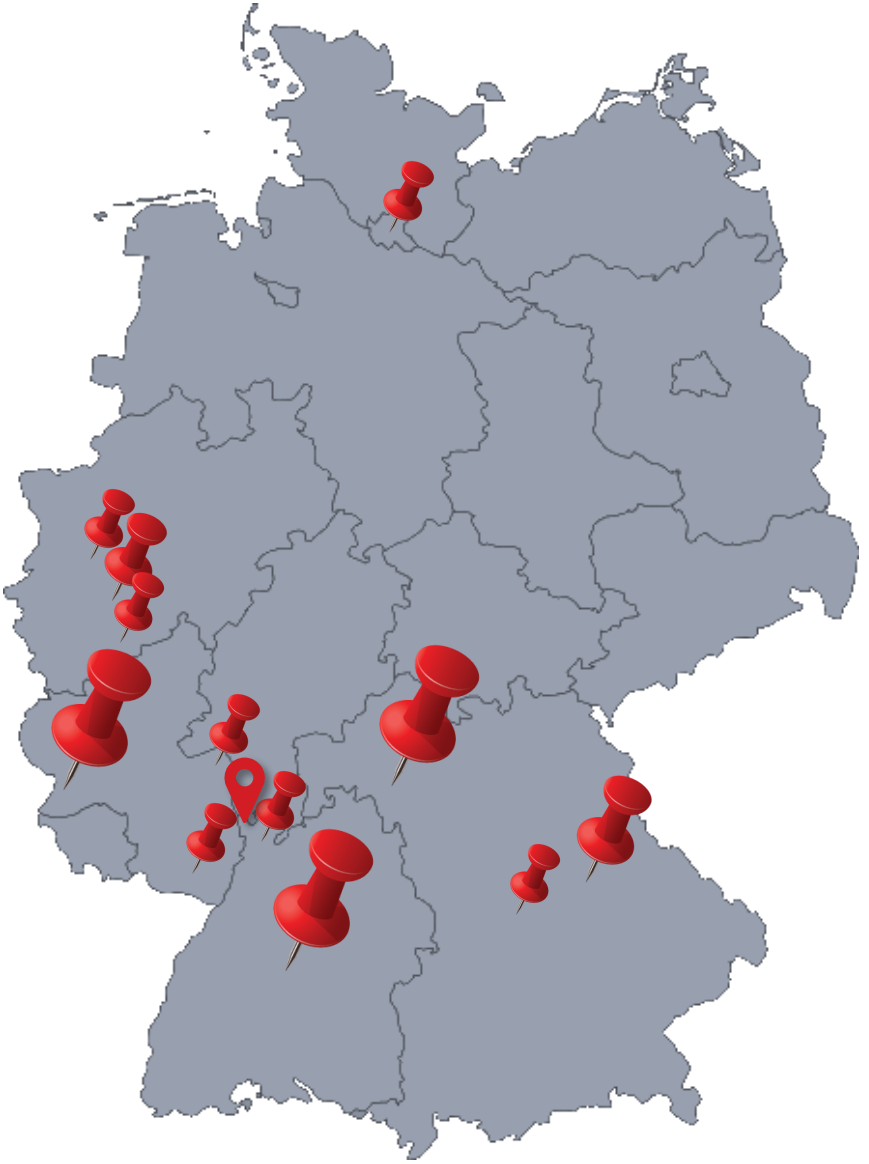
edited by

Sabrina Berres, Sophie Scharf, Martin Schnuerch,
Liliane Wulff, and Malte Zimdahl

July 25 to 28
Mannheim, Germany

Welcome to Mannheim



Dear A-Dok attendees,

We hope you had a safe trip and we are pleased to warmly welcome you to this year's A-Dok in Mannheim.

Our program is packed with contributions from all over Germany and from a versatile range of research areas summarized under the umbrella of Experimental Psychology. This broad range is also mirrored in the keynote lectures: Dr. Carolina Kuepper-Tetzel will provide us with an honest reflection of an academic journey. Dr. Philipp Laux will elaborate on parallels between scientific work and professional sports. And Prof. Dr. em. Günter Köhnken will focus on the reconciliation of basic and applied research. Right before the A-Dok, Dr. Daniel Heck offers a hands-on pre-workshop on Bayesian parameter estimation with Stan. We would like to welcome our external guests and thank them for their valuable contribution to this workshop.

We would like to take this opportunity to thank Prof. Dr. Arndt Bröder, Prof. Dr. Edgar Erdfelder, Prof. Dr. Beatrice G. Kuhlmann, and our student assistants for their vigorous support in advance and during this workshop. Moreover, we would like to thank all the financial supporters and sponsors without whom we would not have been able to realize this workshop. We would also like to thank the Fachgruppe Allgemeine Psychologie of the DGPs and the University of Mannheim. Last but not least, we are very grateful for the helpful advice that we received from the 2018 organization team from the Johannes Gutenberg University Mainz during the entire organization process.

We are looking forward to listening to fascinating keynote lectures, enjoying enriching talks and poster presentations, engaging in stimulating discussions and, most importantly, having a great time with you!

Once again, welcome to beautiful Mannheim. We are glad to have you!

The 8th A-Dok Organization Team
Sabrina Berres, Sophie Scharf, Martin Schnuerch,
Liliane Wulff, and Malte Zimdahl

Program Overview

Thursday, July 25	Friday, July 26	Saturday, July 27	Sunday, July 28
		9.30 – 11.00 Poster Session I + Breakfast	Sleeping late...
	10.00 – 11.00 Arrival		10.00 – 11.30 Poster Session II + Breakfast
	11.00 – 12.00 Welcome Address	11.00 – 12.15 Keynote: P. Laux	
	12.00 – 13.00 Talks I: Methods		11.30 – 12.30 Talks V: Emotion & Social Cognition
		12.15 – 13.45 Lunch Break	12.30 – 13.00 Coffee Break
13.00 – 18.00 Pre-Workshop: Daniel W. Heck	13.00 – 14.30 Lunch Break		13.00 – 14.00 Talks VI: Health Psychology
		13.45 – 14.45 Talks III: Attention	14.00 Closing Session + Election A-Dok 2020 Host
	14.30 – 15.30 Talks II: Action Control	14.45 – 15.15 Coffee Break	
	15.30 – 16.00 Coffee Break	15.15 – 16.30 Keynote: G. Köhnken	
	16.00 – 17.15 Keynote: C. Kuepper-Tetzel	16.30 – 17.00 Coffee Break	
		17.00 – 18.00 Talks IV: Working Memory	
19.00 Pizza & Drinks	19.00 Brewery Tour & Dinner	19.00 Legendary BBQ	

General Information

Conference Venue

The A-Dok 2019 takes place in the beautiful baroque castle which was built in the 18th century and has hosted the university since 1955. The pre-workshop as well as the main workshop will be held in the Fuchs-Petrolub-Festsaal (O 138) in the east wing of the castle (see map on page 11).

WiFi Internet Access

The University of Mannheim provides free WiFi access for all A-Dok 2019 participants. If you have an *eduroam* account, you can log in with your username (username@your-university.de) and password from your home institution. Alternatively, you can log in to our A-Dok guest network:

WiFi name: adok2019
Password: doelle@adok19

Conference bags

You will get a conference bag (provided by Pearson) with a pad of paper, the conference program, your name badge, a city map, and a cup. You can use this cup to get coffee every day at the conference venue. In the evenings, we will clean the cups and at the end of the conference, you can take your cup home as a souvenir of the A-Dok.

Traveling in Mannheim

Since 2019, Mannheim has been a model city for clean mobility. Subsidized by the German government, Mannheim has reduced the fares for public transport substantially. With the "Green City Ticket" you only pay 1.80€ for a ticket that you can use within the whole city. Furthermore, if you use the VRN eTarif App you can choose the "Luftlinientarif" and pay even less. You simply check in via your smartphone when you enter a tram or a bus and check out when you leave it. You can get more information here:
www.vrn.de/service/apps/etarif

Coffee Breaks

Between talk sessions, there will be breaks to refresh and get something to drink and eat. Coffee, tea, softdrinks, and snacks will be available during the entire workshop right in front of the conference room.

Breakfast

On Saturday and Sunday, the poster session in the morning will be accompanied by a simple breakfast buffet. We will provide fresh rolls and bread, cheese, fresh fruit and some vegan alternatives.

Restaurants

The University of Mannheim is located in the heart of the city with many restaurants in walking distance. Some recommendations for lunch on Saturday:

Burrito Baby
Mexican, vegetarian/vegan
D4, 5
www.burritobaby.de/mannheim

Le Toulonnais
French-style, baguette and salad
N4, 1
www.facebook.com/baguetterieletoulonnais/

N-Eins Lounge
Cross-over cuisine
N1, 1
www.n-eins-lounge.de

Safran
Persian-Afghan
M2, 11
www.safranmannheim.de

Special Events

Beyond scientific exchange, we want to foster networking among the A-Dok attendees. Therefore, we have planned a few special events during the workshop.

Thursday, July 25 | 19.00

After the pre-workshop, we will go to the beautiful banks of the river Rhine and enjoy pizza and drinks in a lovely landscape.

Friday, July 26 | 13.00

We will have a joint lunch break at the restaurant "Novus" in M4, 1. You can have a look at the lunch menu options beforehand via www.novus-mannheim.de.

Friday, July 26 | 19.00

We will visit the Eichbaum Brewery and take a tour through the manufacturing sites. We will learn everything about brewing beer and how it has been done in Mannheim since 1679. After the tour, we will end the day in the brewery's very own beer garden.

Saturday, July 27 | 12.15

You can choose where you would like to have lunch on this day. We provide you with a few recommendations (see page 8).

Saturday, July 27 | 19.00

Following the tradition, this A-Dok will also have the legendary barbecue on Saturday night. There will be drinks, grilled food (meat as well as vegetarian and vegan alternatives), salads and much more...

About Mannheim

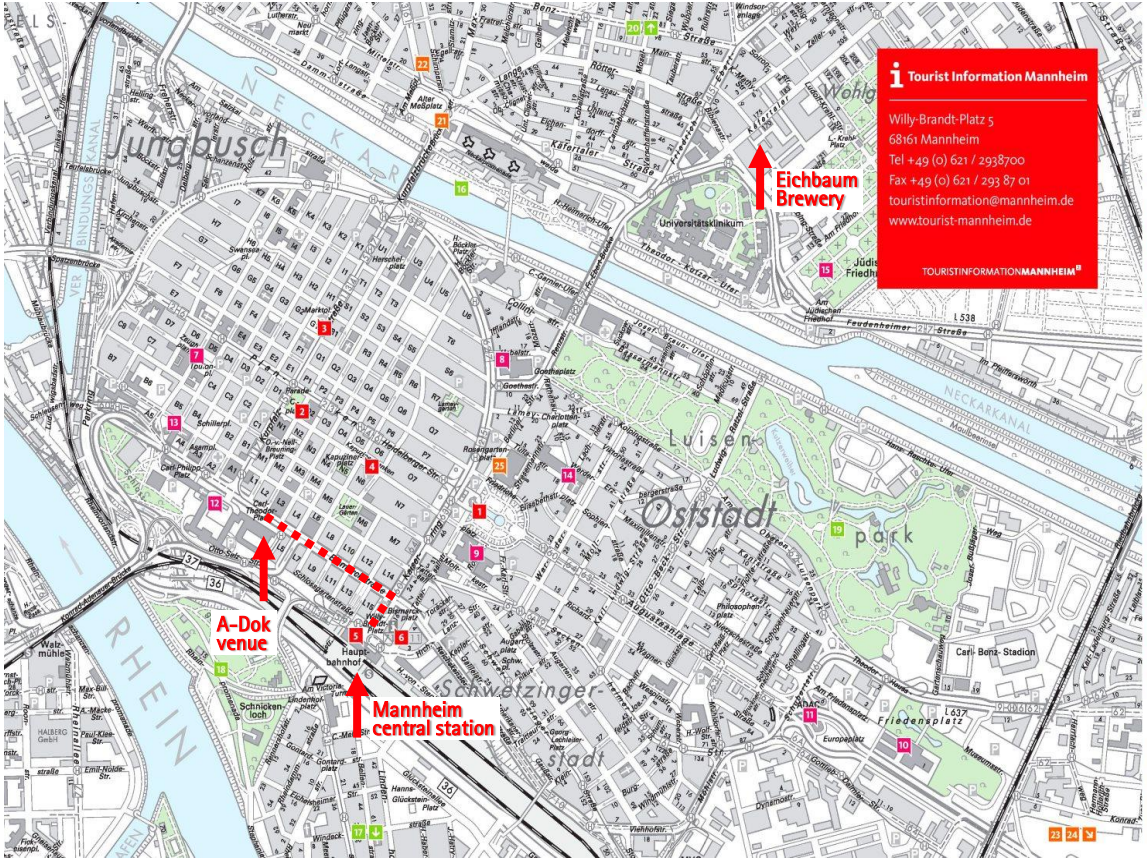
There is a proverb saying that „in Mannheim you cry twice: once you come, and once you leave". Indeed, although you might have heard that the city is unsightly, it has an undeniably charm. And once you come here and get to know it, you will find that it is a beautiful city with lots to offer.

Mannheim is the third-largest city in Baden-Württemberg with approximately 305,000 inhabitants. It is often referred to as the "City of Two Rivers" because it is located at the confluence of the Rhine and the Neckar. In the famous city center, streets and avenues are laid out in a grid pattern, leading to Mannheim's second nickname: "Quadratestadt" ("City of Squares").

Must-visits in Mannheim are the baroque castle (home to the university), the Wasserturm, and the Luisenpark. Furthermore, Mannheim's SAP Arena is not only home to the current German ice hockey champions Adler Mannheim but also to the successful handball team Rhein-Neckar Löwen.

According to Forbes magazine, Mannheim is known for its exceptional inventive power. Indeed, in 1817, Karl Drais built the first bicycle in Mannheim. In 1886, Karl Benz drove the first automobile in the streets of Mannheim and his wife, Bertha Benz, undertook the world's first road trip by automobile from Mannheim to Pforzheim in 1888.

Finally, Mannheim also has a long psychological tradition: Wilhelm Wundt (1832 – 1920), widely regarded as the father of experimental psychology and founder of the first laboratory for psychological research in 1879, was born in Mannheim. Otto Selz (1881 – 1943), whose works are considered an antecedent of modern cognitive psychology, was rector and professor at the University of Mannheim until the Nazis banned him from his profession and murdered him in Auschwitz. The Otto Selz street as well as the Otto Selz Institute of Applied Psychology in Mannheim commemorate his life and works.



Mannheim

SEHENSWÜRDIGKEITEN / *SIGHTS*

MANNHEIM LEBT. / *MANNHEIM IS VIVID.*

1 Wasserturm / *Historic Water Tower*
2 Paradeplatz
3 Marktplatz / *Market Place*
4 Kapuzinerplanken
5 Hauptbahnhof / *Central Railway Station*
6 Tourist Information

MANNHEIM ATMET. / *MANNHEIM IS VIBRANT.*

16 Neckarufer / *Riverbanks of the Neckar*
17 Waldpark & Reißinsel
18 Rheinpromenade / *Rhine promenade*
19 Luisenpark
20 Herzogenriedpark

MANNHEIM BEGEISTERT. / *MANNHEIM IS INSPIRING.*

7 Reiss-Engelhorn-Museen / *Reiss-Engelhorn-Museums*
8 Nationaltheater / *National Theatre*
9 Kunsthalle Mannheim / *Art Gallery*
10 TECHNOSEUM / *Technical Museum*
11 Planetarium
12 Barockschloss / *Baroque Castle*
13 Jesuitenkirche / *Jesuit Church*
14 Christuskirche / *Christ Church*
15 Jüdischer Friedhof / *Jewish Cemetery*

MANNHEIM PULSIERT. / *MANNHEIM IS EXCITING.*

21 Alte Feuerwache / *Old Fire Station*
22 Capitol
23 Maimarktgelände / *Maimarkt Area*
24 SAP Arena
25 m:con – congress center Rosengarten / *Congress Centre*

■ ■ ■ Walk from the main station to the conference venue

Pre-Workshop

Thursday, July 25, 13.00 – 18.00

Introduction to Bayesian Parameter Estimation with Stan

Dr. Daniel W. Heck
University of Mannheim

This workshop introduces the core principles of Bayesian parameter estimation and illustrates its application with the software Stan. After a short introduction to the definition of likelihood, prior, and posterior distributions, the conceptual foundations of Markov chain Monte Carlo methods are discussed and practiced by fitting simple models with the software Stan.

Daniel Heck is a Postdoctoral Researcher at the DFG Research Training Group "Statistical Modeling in Psychology". He received his Ph.D. from the University of Mannheim (with an intermediate stay as a visiting researcher in the lab of E.-J. Wagenmakers at the University of Amsterdam). His research focuses on innovations in statistical methods, Bayesian statistics in particular, mathematical modeling of cognitive processes, and judgment and decision-making. His methodological and substantive contributions to the field of psychology have been published in leading journals such as Psychological Review, Cognitive Psychology, Psychometrika, Psychonomic Bulletin & Review, and the Journal of Mathematical Psychology, to name a few. For his achievements, he received several prestigious awards, such as the Heinz Heckhausen Award of the Deutsche Gesellschaft für Psychologie (DGPs) and the Rising Star Award of the Association for Psychological Science (APS).

Keynote

Friday, July 26, 16.00 – 17.15

An Honest Reflection Of An Academic Journey

Dr. Carolina Kuepper-Tetzel
University of Dundee, UK

In her talk Dr. Carolina Kuepper-Tetzel will reflect on her academic journey and detail the lessons that she learned along the way. Drawing from personal experience and anecdotes, she will elaborate on hands-on recommendations for life after the PhD. She will offer an international and family-oriented perspective on the topic and highlight turning points on her academic journey which ultimately led her to where – and possibly who – she is as an academic. To broaden the scope of the talk, she will add viewpoints and tips from other academics as well. She will conclude with a discussion about do's/don'ts and an overview of further resources.

Dr. Carolina Kuepper-Tetzel is an Assistant Professor of Psychology at the University of Dundee, Scotland, UK, an expert in applying findings from Cognitive Science to education, and an enthusiastic science communicator. She obtained her Ph.D. in Cognitive Psychology from the University of Mannheim and pursued postdoc positions at York University in Toronto and the Center for Integrative Research in Cognition, Learning, and Education (CIRCLE) at Washington University in St. Louis. Her expertise focuses on learning and memory phenomena that allow implementation to educational settings to offer teachers and students a wide range of strategies that promote long-term retention.

Keynote

Saturday, July 27, 11.00 – 12.15

Der Weg ist das Ziel: Parallelen zwischen Profisport und Promotion

Dr. Phillip Laux
Teampsychologe der U21-Herren-Fußballnationalmannschaft

Viele junge WissenschaftlerInnen beschäftigt die Frage: Wie geht es für mich weiter, was ist der beste Weg? Das Planen einer Berufslaufbahn mit befristeten Verträgen und häufigen Verlagerungen von Lebensmittelpunkten ist herausfordernd – sowohl in der Wissenschaft wie auch im Profisport. Dr. Philipp Laux, ehemaliger Profi-Fußballer, Torwarttrainer und aktuell Teampsychologe der deutschen U21-Herren-Fußballnationalmannschaft, kennt beide Bereiche. In seinem Vortrag beschreibt er die Parallelen zwischen Profisport und Promotion und zeigt Möglichkeiten auf, seinen Berufsweg auch unter unsicheren Bedingungen erfolgreich zu gestalten.

Dr. Philipp Laux stand bis zu seinem 30. Lebensjahr auf dem Fußballplatz und feierte als Torhüter u.a. mit Borussia Dortmund den Meistertitel und stand im Finale der Europa League. Nach einer Verletzung arbeitete er zunächst als Torwarttrainer (bei der TSG Hoffenheim und beim DFB) und absolvierte ein Psychologiestudium an der Universität Mannheim. Anschließend kehrte er als Teampsychologe (beim FC Bayern München, RB Leipzig und dem VfB Stuttgart) in den Fußball zurück. Von 2012 bis 2015 promovierte er an der Universität Heidelberg und absolvierte von 2016 bis 2018 eine Business-Coaching-Ausbildung bei Dr. Gunther Schmidt am Milton-Erickson-Institut in Heidelberg.

Keynote

Saturday, July 27, 15.15 – 16.30

Unrichtige Aussagen von Zeugen und Beschuldigten: Ursachen & Analysemethoden

Prof. Dr. em. Günter Köhnken
Universität Kiel

In seinem Vortrag wird Prof. Dr. em. Günter Köhnken die Vereinbarkeit von Grundlagenforschung und Anwendung behandeln. Dazu wird er auf aktuelle Forschungsarbeiten Bezug nehmen und darstellen, welche Bedeutung diese für die Beurteilung von Aussagen haben. Dies wird er durch eigene Forschungsergebnisse und seine persönlichen Erfahrungen bei der Begutachtung von Aussagen ergänzen. Der Vortrag soll damit verdeutlichen, wie Grundlagenforschung angewendet und die häufig wahrgenommene Diskrepanz zwischen diesen beiden Bereichen verringert werden kann.

Prof. Dr. em. Günter Köhnken ist einer der renommiertesten Rechtspsychologen Deutschlands. Er studierte und promovierte an der Universität Kiel und wurde dort 1988 habilitiert. Nach Stationen in Marburg und Portsmouth (UK) leitete er bis zu seiner Emeritierung den Lehrstuhl für Rechtspsychologie, Psychologische Diagnostik und Persönlichkeitspsychologie in Kiel. Er ist Autor mehrerer Bücher und zahlreicher Artikel zum Thema Glaubwürdigkeit von Zeugenaussagen und forscht seit fast 40 Jahren in diesem Bereich. Darüber hinaus arbeitet Prof. Dr. em. Günter Köhnken als Gutachter in Gerichtsprozessen (u.a. beim Strafverfahren gegen Jörg Kachelmann) und greift dabei auf seine umfangreiche Forschungsarbeit zurück.

Detailed program

Thursday, July 25

12.00	Arrival (Pre-Workshop attendees)
13.00	**Pre-Workshop: Introduction to Bayesian parameter estimation with Stan** *Dr. Daniel W. Heck, University of Mannheim*
19.00	Pizza & Drinks

Friday, July 26

10.00	Arrival
11.00	Official Welcome Address

Talks I: Methods

12.00	Taking tDCS into the "field" – Replication and Application *Maximilian Friehs, University of Trier*
12.20	Efficient hypothesis testing with the sequential probability ratio *t*-test *Martin Schnuerch, University of Mannheim*
12.40	lab.js: A free, open, online study builder *Felix Henninger, University of Koblenz-Landau*

13.00	Lunch Break *Joint lunch at the Café Bistro Novus, M4, 1*

Talks II: Action Control

14.30	Does temporal predictability of tasks influence task choice? *Vanessa Jurczyk, University of Regensburg*
14.50	The influence of response type on binding effects in localization tasks *Lars-Michael Schöpper, University of Trier*
15.10	Keep your distance! Driving behavior of professional drivers after truck platooning under real traffic conditions *Sarah-Maria Goerlitz, University of Mainz*

15.30	Coffee Break
16.00	**Keynote: An honest reflection of an academic journey** *Dr. Carolina Kuepper-Tetzel*
19.00	Eichbaum Brewery Tour & Dinner

Saturday, July 27

Poster Session I & Breakfast

09.30

Janina Balke, University of Tübingen
Sabrina Berres, University of Mannheim
Larissa Duffek, University of Düsseldorf
Ruben Laukenmann, University of Mannheim
Ronja Mueller, Medical School Hamburg
Eva Riechelmann, University of Würzburg
Madeleine Stepper, University of Tübingen
Anne-Sophie Waag, University of Mannheim
Franz Wurm, University of Eichstaett-Ingolstadt

11.00	**Keynote: Der Weg ist das Ziel – Parallelen zwischen Profisport und Promotion** *Dr. Philipp Laux*
12.15	Lunch Break

Talks III: Attention

13.45	Tactile Representational Momentum – The contradictory influence of velocity *Simon Merz, University of Trier*
14.05	On the influence of attention and multi-sensory input on blinking *Mareike Brych, University of Würzburg*
14.25	Essen geht vor: Food-Stimuli modulieren den Attentional Blink *Hannah Kirsten, University of Bonn*

14.45	Coffee Break
15.15	**Keynote: Unrichtige Aussagen von Zeugen und Beschuldigten – Ursachen & Analysemethoden** *Prof. Dr. em. Günter Köhnken*
16.30	Coffee Break

Talks IV: Working Memory

17.00	Benefits and risks of offloading working memory processes *Sandra Grinschgl, University of Tübingen*
17.20	Reorganization of spatial configurations in visual working memory *David Timm, University of Tübingen*
17.40	Binding time: Integration of response duration into event files *Katrin Köllnberger, University of Regensburg*

19.00	The obligatory legendary A-Dok Barbecue

Sunday, July 28

Poster Session II & Breakfast

10.00	*Christina Breil, University of Würzburg* *Mareike Hoffmann, University of Würzburg* *Felicitas Muth, University of Würzburg* *Michael Ohlinger, University of Mannheim* *Karolin Salmen, University of Heidelberg* *Nikoletta Symeonidou, University of Mannheim* *Philine Thomasius, University of Cologne* *Liliane Wulff, University of Mannheim*

Talks V: Emotion & Social Cognition

11.30	Affective contexts modulate conflict adaptation *Anja Berger, University of Regensburg*
11.50	Why are self-associated shape-label pairings cognitively prioritized? *Gabriela Orellana Corrales, University of Tübingen*
12.10	Hindsight bias in judgments of learning (JOLs) *Malte F. Zimdahl, University of Mannheim*

12.30	Coffee Break

Talks VI: Health Psychology

13.00	A meta-analysis of the relation between weight stigma, mental health and well-being *Christine Emmer, University of Mannheim*
13.20	The association of mental health problems and the consumption of soft drinks in children and adolescents – A cross-lagged panel analysis *Philipp Kadel, University of Mannheim*
13.40	Posting for health – A field experiment on how social media use affects healthy eating *Michael Kilb, University of Mannheim*

14.00	Closing Session & Election A-Dok 2020 Host

Abstracts

Temporal preparation increases bottom-up salience of distracting stimuli in visual search

Janina Balke, University of Tübingen
janina-hannah.balke@uni-tuebingen.de

Temporal preparation improves our perception: we can predict when a specific future event will happen and we can direct cognitive resources towards this event. The benefit of temporal preparation can be seen in tasks such as visual search. Specifically, it has been shown that spatial selection of a pop-out target (i.e., a stimulus differing in one unique feature from all other stimuli) is improved by temporal preparation. However, the mechanisms that underlie this processing benefit are still unclear. In an event-related potential (ERP) study (N=24) we investigated whether it is due to a global acceleration of sensory processing, an increase in bottom-up salience, or a better top-down control. We varied temporal preparation in a blocked foreperiod paradigm, and we required participants to search for an orientation pop-out (target) while ignoring an additional colour pop-out (singleton distractor). At the behavioural level, temporal preparation led to faster responses to targets. In the ERP, temporal preparation enhanced the distractor-evoked N2pc, an index of attentional orienting towards a stimulus. These results suggest that temporal preparation increases bottom-up salience of a stimulus (regardless of its task-relevance). We assume that further processes counteracting the salience effect cause the processing benefit for targets by temporal preparation.

Affective contexts modulate conflict adaptation

Anja Berger, University of Regensburg
anja.berger@psychologie.uni-regensburg.de

Sequential conflict adaptation is a hallmark of adaptive human action control: The cognitive system dynamically adjusts to response conflicts in the ongoing processing stream as evidenced by smaller response interference effects following conflicts as compared to non-conflicts. There is increasing evidence that this sequential adaptation effect critically depends on the affective context in which conflict stimuli occur: It has been shown that (aversive) conflict stimuli trigger stronger adaptation effects when they are embedded in a positive as compared to a negative context. Here, we aimed to investigate whether this would also hold true for sequential adaptations in the Simon task when stimuli consist of positive vs. negative affective pictures. In two Experiments, we presented positive vs. negative stimuli in mini-blocks to either the right or left side of the screen, creating Simon like conflict. The respective two-choice task was unrelated to the affective valence of the stimuli. In both Experiments we found evidence for reduced sequential conflict adaptation effects in the negative picture blocks as compared to the positive picture blocks (in error rates in Experiment 1, in reaction times in Experiment 2). The results thus partially confirm the hypotheses. Implications and potential shortcomings will be discussed.

Let's neglect what hurts my ego! A research proposal on the cognitive mechanisms underlying mnemic neglect

Sabrina Berres and Jana B. Berkessel, University of Mannheim
sberres@mail.uni-mannheim.de

A positive self-concept is essential for optimal functioning and well-being. One strategy to maintain a positive self-concept is neglecting self-concept-threatening information. Currently, there are two explanations for this phenomenon called mnemic neglect: The first explanation states mnemic neglect is caused by weak encoding of self-concept-threatening information. According to this explanation, people shift attention away from self-concept-threatening information, thereby encoding this information only on the surface. The second explanation states that mnemic neglect is caused by difficulties to retrieve self-concept-threatening information. According to this explanation, self-concept-threatening information are not well integrated into self-relevant memories. This makes self-concept-threatening information less accessible and therefore hard to recall. In order to investigate the question, whether encoding, retrieval or both processes contribute to mnemic neglect, we propose the Encoding-Maintenance-Retrieval (EMR) multinomial model. This model provides separate measures for successful encoding of behavior examples (e), maintaining encoded examples (m), and retrieving stored examples (r). We plan to manipulate the referent (Self vs. Chris), the type (central vs. peripheral) and the valence (positive vs. negative) of the behavior example in an online study. We predict a lower encoding and retrieval probability for negative information that is central to the self-concept.

From eye to arrow: Influences of nonsocial and social cues on attention capture

Christina Breil, University of Würzburg
christina.breil@uni-wuerzburg.de

Previous research suggests that direct eye contact and motion are two independent and powerful cues for attention capture. In the present study, we investigated whether attention capture by direct gaze (direct gaze effect) varies in relation to the level of social information represented by the stimuli. The participant's task was to classify a target letter that appeared on one of four simultaneously presented stimuli. Initially, two of the stimuli directly addressed the participant (direct), while the other two stimuli pointed to the side (averted). One direct stimulus changed to averted and one averted stimulus changed to direct (motion) at the same time the target was presented, while the other two stimuli remained static (no motion). Stimuli were real eyes looking at or away from participants (experiment 1), comic eyes (experiment 2), real hands pointing at or away from participants (experiment 3), comic hands (experiment 4), or arrows pointing at or away from participants (experiment 5; each N = 30). We hypothesized that the effect of being addressed (approach effect) is stronger for social cues, i.e. strongest in experiment 1 and weakest in experiment 5. This pattern would indicate that the approach effect relies on the available level of social information.

On the influence of attention and multi-sensory input on blinking

Mareike Brych, University of Würzburg
mareike.brych@uni-wuerzburg.de

Blinks are known to be influenced by visual sensory input. Blink rates for example decrease during visual search tasks, but after trial end or stimulus offset, an increase in blinks can be found. Unfortunately, little is known about the influence of non-visual sensory input and its modulation by top-down cognitive processes. We aim to understand if auditory input influences blinks when presented alone or within a multisensory task. Moreover, we want to investigate if top-down driven attention can modulate such influence. Therefore, participants performed a detection task in the visual modality only, the auditory modality only or given both sensory inputs at the same time. Preliminary data (N = 12) indicates a similar decrease in blink rate before visual as well as auditory stimuli. Furthermore, blink rate seems increased after presentation of a stimulus independent of the modality. Interestingly, the timing of blink rate modulation seems different for target, distractor and standard. Our data further suggests a difference in modulation dependent if the auditory or the visual stream was attended, however, visual seems to be dominant. Our preliminary data suggests that the sensory driven influence on blink rate goes beyond the visual domain and that top-down cognitive factors additionally modulate blinking.

The influence of induced shame on prospective memory

Larissa Duffek, University of Düsseldorf
larissa.duffek@hhu.de

Event-based prospective memory (PM) refers to performing a previously planned action at a certain point in the future while being engaged in an ongoing task. For example, remembering to turn your phone silent when entering the library. PM consists of two components: the prospective component (remembering that something has to be done) and the retrospective component (remembering what has to be done and when). As PM is crucial for everyday functioning, it is important to ascertain factors influencing PM performance. Two notable factors are emotion and mood, which have previously been shown to affect PM. However, these studies focused on sadness and happiness. To date, no study investigated the effect of self-conscious emotions (e.g. shame) on the components of PM. However, previous research has shown that shame impairs working memory, which is considered a process linked to PM. Thus, the present study investigates whether shame also impairs PM performance. Participants performed a mood induction procedure (shame vs. neutral) before working on a standard event-based PM task. Results will be analyzed using Smith & Bayen's (2004) multinomial processing tree model of event-based PM in order to disentangle the prospective and retrospective component.

A meta-analysis of the relation between weight stigma, mental health and well-being

Christine Emmer, University of Mannheim
emmer@uni-mannheim.de

In recent years, there has been considerable research on the relation between weight stigma and mental health, but no quantitative synthesis of the empirical evidence is available to date. This meta-analysis (79 studies, 44,752 participants, 371 effect sizes) fills this gap by quantifying the association between weight stigma and mental health. Age, gender, and factors presumed to exert a protective role (i.e., adaptive coping strategies, perceived social support) were tested as potential moderators. The three-level meta-analytic model estimated under a random effects assumption revealed a medium to large negative association between weight stigma and mental health ($r = -.39$). The overall association remained significant when controlling for publication year, education, body weight, and obesity. There was substantial heterogeneity in effect sizes between and within studies. Surprisingly, all moderator hypotheses had to be rejected. Future research could focus on explaining the heterogeneity of findings and on testing causality as well as potential underlying mechanisms.

Taking tDCS into the "field" – Replication and application

Maximilian Friehs, University of Trier
friehs@uni-trier.de

The ability to inhibit an action or a certain stimulus aspect is one of the three core executive functions according to Miyake & Friedman (e.g. 2000, 2018). The Stroop task and the Stop-Signal Task (SST) are established measures of different aspects of inhibition. Earlier studies (e.g. Frings et al., 2018, Friehs & Frings 2019) showed that prefrontal transcranial direct current stimulation (tDCS) can be used to modulate inhibitory control as measured by performance changes in the aforementioned tasks. tDCS is a non-invasive brain stimulation tool used to modulate sub-threshold membrane potentials and neurotransmitter activities. To explore generalizability of the results two conceptual replication studies were conducted focusing on more applied stimulus configurations. The head fake effect (analogue to the Stroop task) and a custom-build infinite runner game (analogue to the SST) were chosen. Data from both studies will be presented and discussed (see also Friehs et al., 2019). In short, it seems that tDCS effects are transferable to more applied settings under certain circumstances.

Keep your distance! Driving behavior of professional drivers after truck platooning under real traffic conditions

Sarah-Maria Goerlitz, University of Mainz
sgoerlit@uni-mainz.de

Platoon driving is a current branch in the development of automated driving in which two or more vehicles build a convoy. The lead vehicle is controlled manually while following vehicles are electronically coupled and drive semi-automated with small gaps in order to achieve a better traffic flow and potential fuel savings. The aim of the study was to investigate (1) how different gap sizes are perceived by professional truck drivers under real traffic conditions and (2) whether semi-automated platoon driving leads to changes in driving behavior of subsequent manual driving. In a real road experiment, N = 10 trained professional truck drivers completed several test drives with a two-truck platoon on the German highway A9 with a gap size of 15m and 21m, in the leading and the following vehicle. Results: (1) The drivers experienced both gap sizes as comfortable and preferred the smaller gap size of 15m. (2) A tendency of smaller distance keeping in post- compared to pre-platoon driving for both gap sizes could be observed for approximately 10 minutes. Both gap sizes led to significantly higher standard deviation of lane position (SDLP) in post- compared to pre-platoon driving. The results implicate that small gap sizes are perceived as comfortable by drivers and that platoon driving has an influence on subsequent manual driving.

Benefits and risks of offloading working memory processes

Sandra Grinschgl, University of Tübingen
sandra.grinschgl@uni-tuebingen.de

Modern technologies such as smartphones or tablets allow for temporarily externalizing working memory processes (i.e. cognitive offloading). Whereas such externalizations support immediate performance on different tasks, little is known about the long-term consequences of offloading behavior. In the current set of experiments, we demonstrate a trade-off between immediate task performance and the accuracy of subsequent long-term memory. Our participants solved a pattern copy task while we manipulated the costs associated with cognitive offloading as well as the awareness of a subsequent memory test. Experiment 1 (n=172) shows that increasing costs for offloading result in less offloading behavior and thus lower immediate task performance (i.e. slower task processing) but more accurate performance in an unexpected memory test. Experiment 2 (n=172) shows that offloading behavior remained detrimental for subsequent memory performance when participants are aware of the upcoming memory test. This trade-off urges for care when using offloading devices extensively and emphasizes the importance of metacognitive evaluations for strategy selection in situations of knowledge acquisition.

lab.js: A free, open, online study builder

Felix Henninger, University of Koblenz-Landau
henninger@uni-landau.de

Web-based data collection is increasingly popular in both experimental and survey-based research, because it is flexible, efficient and location-independent. While dedicated software for laboratory-based experimentation and online surveys is commonplace, researchers looking to implement experiments in the browser have, heretofore, often had to manually construct their studies' content and logic using code. We introduce lab.js, a free, open-source experiment builder that makes it easy to build experiments for both online and in-laboratory data collection. Through its visual interface, stimuli can be designed and combined into a study without programming, though studies' appearance and behavior can be fully customized using HTML, CSS and JavaScript code if required. Presentation and response times are kept and measured with high accuracy and precision heretofore unmatched in browser-based studies. Experiments constructed with lab.js can be run directly on a local computer, and published online with ease, with direct deployment to cloud hosting, export to any web server, and integration with popular data collection tools. Studies can also be shared in an editable format, archived, re-used and adapted, enabling effortless, transparent replications, and thus facilitating open, cumulative science. The software is provided free of charge under an open-source license; further information, code and extensive documentation are available from https://lab.js.org/.

Effector system prioritization in task switching vs. dual tasking – The role of temporal task overlap in inducing oculomotor dominance

Mareike Hoffmann, University of Würzburg
mareike.a.hoffmann@gmail.com

In multitasking situations performance normally suffers compared to single tasks in isolation. These performance decrements are typically distributed asymmetrically among tasks. This phenomenon can, under suitable conditions, be interpreted in terms of task prioritization. Among different multitasking paradigms, effects of task prioritization can be observed in different empirical markers, for example in asymmetrical dual-task costs (dual- minus single task performance) in paradigms involving simultaneous stimulus presentation. In the task switching paradigm – requiring subjects to switch between tasks on a trial-by-trial basis – performance typically declines in task switch (vs. repetition) trials. Again, these switch costs are often distributed asymmetrically among tasks. Since task switching does not involve temporally overlapping task demands, switch costs are merely based on cognitive representations of two competing task sets. In the present study, we present data demonstrating cognitive prioritization of oculomotor tasks over tasks involving other effector systems (pedal, vocal, manual) in a multitasking paradigm involving temporal task overlap (indexed by smaller oculomotor dual-task costs). In contrast, we found no evidence for oculomotor prioritization in the task switching paradigm which does not include task overlap. Results demonstrate the important role of temporally overlapping action demands in effector system-based task prioritization.

Does temporal predictability of tasks influence task choice?

Vanessa Jurczyk, University of Regensburg
vanessa.jurczyk@psychologie.uni-regensburg.de

Task performance improves when the required tasks are predicted by the preceding time intervals, suggesting that participants form time-based task expectancies. In the present study, we pursued the question whether temporal predictability of tasks can also influence task choice. For this purpose, we conducted three experiments using a hybrid task switching paradigm (with two tasks) combining forced-choice and free-choice trials which were preceded by short and long foreperiods. In forced-choice trials, the instructed task was predicted by the length of the foreperiod (Exp. 1A and 1B: 100% foreperiod-task contingency; Exp. 2: 80% foreperiod-task contingency). In the remaining trials, participants were free to choose which task to perform. In all three experiments, we found that participants' task choice was influenced by the foreperiod-task contingencies implemented in forced-choice trials. Specifically, participants were overall biased to choose tasks compatible with these contingencies; these compatible-task choice rates were larger for the short compared to the long foreperiod. Our findings suggest that learned time-based task expectancies influence subjects' voluntary task choice and that an initially present task bias towards the "short" task is not always overcome at the long foreperiod. We discuss potential underlying mechanisms against the background of voluntary task switching and interval timing.

The association of mental health problems and the consumption of soft drinks in children and adolescents – A cross-lagged panel analysis

Philipp Kadel, University of Mannheim
pkadel@mail.uni-mannheim.de

Mental health problems have been investigated as both an outcome and a predictor for the consumption of soft drinks. Importantly, most research on this association has been cross-sectional and thus did not examine its directionality. The current study addresses this gap. I analyzed longitudinal data of N = 5,882 children and adolescents from the nationally representative German KiGGS baseline study (2003 to 2006) and KiGGS wave 1 (2009 to 2012; Robert Koch Institute). The amount of soft drinks per day and mental health problems were assessed by questionnaire (baseline) and telephone interview (wave 1). I specified four cross-lagged panel models, compared them regarding their fit indices and tested specific paths for significance. I found a positive cross-sectional association between mental health problems and soft drink consumption at both measurement points (ps < .005). Only the cross-lagged effect of mental health problems on soft drink consumption reached statistical significance (β = .031, p = .020), but not vice versa. The corresponding model also showed the best model fit overall. I replicated the positive cross-sectional association between mental health problems and soft drink consumption reported in previous research. Moreover, a longitudinal perspective revealed a unidirectional effect of mental health problems on soft drink consumption. Soft drinks might be a way of coping with mental health problems for children and adolescents.

Posting for health – A field experiment on how social media use affects healthy eating

Michael Kilb, University of Mannheim
kilb@uni-mannheim.de

Background: In this study, we experimentally tested whether social media communication influences individual's eating behavior. Methods: In an intensive longitudinal smartphone study, young adults reported their Facebook use, fruit and vegetable intake (FVI), and perceived social support up to eight times per day over one week (n = 56 dyads, N = 382 days). Participants were recruited as dyads (target + network member). Targets' Facebook communication was manipulated between individuals: Targets either regularly posted about their own FVI, or about books and movies (BM). ANOVAs were used to test effects of the manipulation on both posts and FVI. Multilevel models were applied to test a dose-response relationship on a daily basis. Results: Targets in the FVI posting condition posted more FVI-related posts and less BM-related posts compared to the control condition (ps < .001). Additionally, they reported both higher FVI (M = 3.66 vs. M = 2.71, p = .033) and higher perceived social support concerning FVI (M = 30.79 vs. M = 25.43, p = .005). Multilevel data suggested a small dose-response relationship of daily FVI posts on FVI, which, however, did not reach significance (ps > .05). Discussion: Posting about one's FVI improved self-reported FVI. Perceived social support might be one mechanism underlying this relationship. Social media could be used to promote higher FVI among young adults.

Essen geht vor: Food-Stimuli modulieren den Attentional Blink

Hannah Kirsten, University of Bonn
hkirsten@uni-bonn.de

Erhöhte Aufmerksamkeit für Essensreize könnte eine entscheidende Rolle für ungezügeltes Essverhalten und damit bei der Entstehung von Übergewicht spielen. Der Aufmerksamkeitsbias für visuelle Food-Stimuli wurde im Zusammenhang mit der selbstberichteten Disposition zu restringiertem, externalen und emotionalen Essverhalten in einer Rapid Serial Visual Presentation Aufgabe (N = 103) untersucht. Food-Targets verstärkten den Attentional Blink, wenn sie als erster Zielreiz in einer schnellen Bilderfolge gezeigt wurden. An Position des zweiten Targets erschwerten sie die Identifikation vorangegangener Non-Food-Targets im Sinne einer Rückwärtsinterferenz. Aufgabenirrelevante Food-Distraktoren erschwerten ebenfalls die Identifikation nachfolgender Non-Food-Targets. Die Effekte sprechen für eine Priorisierung von Food-Stimuli bei der Zuweisung von Aufmerksamkeitsressourcen. Der Aufmerksamkeitsbias für Essen scheint jedoch ein universelles Phänomen zu sein, das nicht direkt mit persönlichem Essverhalten zusammenhängt.

Binding time: Integration of response duration into event files

Katrin Köllnberger, University of Regensburg
katrin.koellnberger@psychologie.uni-regensburg.de

Reacting to stimuli in the environment creates so-called event files that temporarily bind perceptual and/or action features. Recent research showed that also temporal features like stimulus duration are integrated into event files. Furthermore, there are many situations in which the duration of an action is an important feature. The purpose of the present two experiments was to examine whether the duration of a manual response is integrated into event files. In the first experiment we applied a prime-probe paradigm. Participants responded with short and long keypresses to visual prime and probe stimuli (triangles and circles). A response cue (one of two letters) indicated a short or long keypress. This key press had to be executed as soon as the prime stimulus appeared. The probe response was a speeded short or long keypress that was indicated by the shape of the probe stimulus. Analyses of RT and error data revealed partial repetition costs indicating binding: performance was better when both stimulus shape and response duration repeated or switched relative to partial repetitions (only stimulus shape or only response duration repeated). A second experiment using a free choice variant of the first experiment, confirmed the integration of response duration into event files.

Die Angst vor nordafrikanischen Migranten – Ein Entwurf zur Adaption von waffenbasierten Implicit Racial Bias Tasks in Deutschland

Ruben Laukenmann, University of Mannheim
ruben.laukenmann@students.uni-mannheim.de

Die Weapon Identification Task (WIT; Payne, 2001) und die First-Person Shooter Task (FPST; Correll, Park, Judd, & Wittenbrink, 2002) sind beide reaktionszeitbasierte Messmethoden, die in ihrer ursprünglichen Fassung die Stereotyp-Assoziation von Schwarzen mit Schusswaffen im Vergleich zu Weisen in den USA untersuchen. Dabei beanspruchen beide Methoden die Assoziation von Schwarzen mit Gewalt bzw. deren wahrgenommene Gefährlichkeit zu ermitteln. In der deutschen Gesellschaft können Stereotype über die Gefährlichkeit von nordafrikanischen Migranten eine Rolle spielen. Diese wurden beispielsweise in den letzten Jahren im politischen Diskurs über Asylpolitik geäußert oder nach den gewalttätigen Übergriffen auf der Kölner Domplatte in der Silvesternacht 2015 diskutiert. Das Poster stellt exemplarisch das geplante Versuchsdesign dar, bei dem Gesichter von Nordafrikanern und Mitteleuropäern gepaart mit Messern oder ungefährlichen Stimuli dargestellt werden. Neben der Ethnie wird das Rating der Gefährlichkeit der Gesichter als weiterer Einflussfaktor berücksichtigt. Im Rahmen des Posters soll die methodische Vorgehensweise, der Inhalt des untersuchten Stereotypen sowie der Vergleich zwischen WIT und FPST kritisch betrachtet werden.

Tactile Representational Momentum – The contradictory influence of velocity

Simon Merz, University of Trier
merzs@uni-trier.de

Representational momentum (RM) is the term used to describe a systematic mislocalization of dynamic stimuli, a forward shift, that is, an overestimation of the location of a stimulus along its anticipated trajectory. In the present study, we investigate the effect of velocity on tactile RM, as two distinct and contrasting predictions can be made, based on different theoretical accounts. According to classical accounts of RM, based on numerous visual and auditory RM studies, an increase of the forward shift with increasing target velocity is predicted. In contrast, theoretical accounts explaining spatio-temporal tactile illusions like the tau or cutaneous rabbit effect predict a decrease of the forward shift with increasing target velocity. Participants indicated the last location of a sequence of three tactile stimuli, which either implied motion in a consistent direction toward the elbow / wrist or not. Velocity was manipulated by changing the interstimulus-interval as well as the duration of the stimuli. The results reveal that increasing target velocity led to a decrease and even a reversal of the forward shift resulting in a backward-shift. This result is consistent with predictions based on the evidence from tactile spatio-temporal illusions. The theoretical implications of these results for RM are discussed.

Face adaptation effects of non-configural face information

Ronja Mueller, Medical School Hamburg
ronja.mueller@medicalschool-hamburg.de

Adapting to previously inspected faces can affect the perception of faces seen subsequently. Recent studies employing famous faces were able to show robust adaptation effects over longer time periods (hours and days), suggesting an adaptation on a representational memory basis. However, most face adaptation research has focused on configural information (i.e., mostly addressing 2nd-order relations) and adaptation effects to non-configural face information, such as color, are barely investigated so far. Most likely because color adaptation effects in general are considered to be rather transient and therefore do not seem to affect a representational memory basis (i.e. the probably affect just a sensory level of processing). However, here we investigated face adaptation effects to color by manipulating brightness and saturation. Results of our studies provide evidence for reliable color adaptation effects, which are face-specific and robust over time. This supports the view that color adaptation can affect a representational memory level.

Establishing an auditory measure for temporal binding

Felicitas Muth, University of Würzburg
felicitas.muth@uni-wuerzburg.de

Temporal binding, that is the perceived shortening of the interval between an action and a causally linked sensory event, is commonly assessed by using the Libet Clock. In these experiments, participants have to estimate the timing of actions or sensory events (usually tones) by means of a rotating clock hand presented on screen. This task setup is however not suited for studying visual effects. Thus, this study aims at establishing an alternative measure for temporal binding by using an auditory instead of visual time cues. Participants hear a string of letters while completing a visual task on an iPad. That is, they navigate a cursor through a grid by pressing arrow keys. Afterwards, participants estimate the timing of either their action or the observed event (cursor movement). To establish a methodologically sound measure, we will systematically manipulate the factors sequence predictability, interval filling, and interval length. Besides the project framework, I will present a first study employing this method. 48 participants judged the perceived timing of keypresses or visual effects by means of an auditory timer. Results showed action as well as effect binding. Thus, this study provides the basis for further research on an auditory timer for temporal binding.

Perceptual grouping in visual short-term memory: Attentional processes in the test-phase

Michael Ohlinger, University of Mannheim
mohlinge@mail.uni-mannheim.de

The way grouping processes work in the learning-phase of the change-detection paradigm to examine visual short-term-memory is quite well understood. Perceptual groups can share a memory slot and, in this way, save capacity (Quinlan & Cohen, 2012). Additionally, they gain more attention, leading to a higher probability of a change in these objects being detected (Peterson & Berryhill, 2013; Schmidt et al., 2002). However, if for the test-phase an object is changed to an object sharing a feature with an object of the learning-phase this leads to new perceptual groups in the test-phase. We show that these perceptual groups gain attention too, changing the probability of a change-detection considerably. Thus, perceptual grouping processes must be considered in the learning as well as in the test-phase.

Why are self-associated shape-label pairings cognitively prioritized? Disentangling the effects of label and shape

Gabriela Orellana Corrales, University of Tübingen
gabriela.orellana-corrales@uni-tuebingen.de

After associating simple geometric shapes to the self and other persons, reaction times are faster when verifying the correct self-associated shape-label pairing than one associated with any other person. However, it is unclear whether this effect is due to the shape, the label, or the conjunct function of both. A sample of 28 participants performed a dot-probe task regarding self- and stranger-related stimuli after being instructed to associate simple geometric shapes with themselves and a stranger. The location in which the probe occurred (self vs. stranger) was manipulated, as well as the type of representation used to represent the self and stranger: paring vs. label vs. shape. Significant effects were observed for target location and for type of representation, with faster reaction times towards self-representations and slower reactions towards the label type of representation.

Response-effect compatibility in eye movements

Eva Riechelmann, University of Würzburg
eva.riechelmann@uni-wuerzburg.de

Ideomotor approaches to action control have reported evidence that humans implicitly acquire and use bi-directional action-effect associations, and that the activated anticipatory idea of an action effect (i.e. the action goal) guides action selection. While converging evidence predominantly comes from the manual domain, much less is known about effect-based oculomotor control. The present study aimed at transferring the response-effect compatibility account (cf. Kunde, 2001) to the oculomotor domain. Specifically, we investigated whether compatibility between saccades and their consistent visual effects influenced performance in an oculomotor two-choice reaction task. Participants were instructed to respond to the gender (male/female) of a centrally presented face with left- or rightward saccades (toward a peripheral object). As a result of their saccade, the central face shifted its gaze in direction of the participant's saccade (compatible condition), or in the exact opposite direction of the participant's saccade (incompatible condition). We expected that the anticipated action effect (i.e., the gaze response of the central face) would influence response selection in that we observe faster saccadic response times for compatible (vs. incompatible) trials. Data collection is still ongoing. Our results will contribute to a better understanding of whether basic principles underlying ideomotor control generalize to the oculomotor domain.

Abstracts

The collectively amplified halo? Serial backtranslation between verbal traits and behaviours

Karolin Salmen, University of Heidelberg
karolinsalmen@gmail.com

This work in progress explores how the sign system available for communication influences the repeated retelling of verbal material. It combines the method of back-translation (transferring information from one sign system to another, and then back) with serial reproduction to demonstrate the amplification of semiotic effects caused by repeated transmission. This method is applied to translations between verbal descriptions of behaviours and traits in a first experimental study, which manipulates the sign system available to participants. It is based on research on the halo effect, the density hypothesis, and agency and communion. We hypothesize that the halo effect is amplified over generations, and that cue overlap and high semantic density in the sign system available for communication both strengthens the halo effect and can lead to a preference reversal between different target persons across generations. Background, theory, hypotheses, and design are presented and analysis strategies, further studies, and applications are up for discussion.

Efficient hypothesis testing with the sequential probability ratio *t*-test

Martin Schnuerch, University of Mannheim
martin.schnuerch@psychologie.uni-mannheim.de

Fostered by a series of unsuccessful attempts to replicate seemingly well-established empirical results, the reproducibility crisis has dominated the public debate in psychological science for several years. Apart from increasing awareness for the consequences of questionable research practices, the crisis has drawn attention to the shortcomings of currently dominating statistical procedures. Critically, conventional methods that allow for control of both Type 1 and Type 2 statistical error probabilities often require sample sizes much larger than typically employed. Therefore, I promote an alternative that requires substantially smaller sample sizes on average while still controlling error probabilities: Sequential Analysis. Unlike conventional tests, sequential tests are designed to be applied repeatedly during the sampling process and terminate as soon as there is sufficient evidence for one of the hypotheses of interest. Herein, I discuss the most efficient sequential design, the Sequential Probability Ratio Test (SPRT), and show how it is easily implemented for the common *t*-test to compare means of two independent groups. I demonstrate by means of simulations that the SPRT reliably controls error probabilities and requires smaller samples than classical *t*-tests. Finally, I illustrate the sequential *t*-test by applying it to an empirical example and provide recommendations on how psychologists can employ it in their own research to benefit from its desirable properties.

The influence of response type on binding effects in localization tasks

Lars-Michael Schöpper, University of Trier
schoepper@uni-trier.de

When reacting to stimuli in a sequence, benefits or interference can occur, depending on if the demanded response or features of the stimuli repeat or change. The underlying process is called stimulus-response binding: Response and features (even irrelevant features, i.e., distractors) are bound together and can be retrieved when repeated, leading to benefits for full repetition of response and stimulus features, but causing interference for partial repetition. Although these binding effects are assumed ubiquitous in many simple actions, the attentional orienting literature suggests an absence in localization tasks. In Study 1, red and blue dots appeared at two positions on the right half of the screen. Participants had to discriminate the color (Task A) and the location (Task B; order counterbalanced) of an appearing stimulus with spatially incongruent keypresses. For each task, the not-to-be discriminated feature was irrelevant. We found a binding effect in both tasks. In Study 2, we used a similar location discrimination task, but presented it on a touchscreen, so that participants had to press directly onto the appearing target. Here, binding effects were completely absent. These results suggest that the type of response can lead to binding effects in localization tasks.

Automatic attention influences object correspondence

Madeleine Stepper, University of Tübingen
madeleine.stepper@uni-tuebingen.de

By establishing correspondence between object representations across space and time the visual system enables us to perceive moving objects as continuous entities. A variety of factors, including higher-level factors, like for example the scene context, can influence how this correspondence process is solved. It has therefore been suggested that attention might influence correspondence. To assess correspondence, we used the Ternus display, an ambiguous apparent motion display, in which three elements are either perceived as moving together or as one element jumping across two others. In particular, we used a competitive Ternus display, in which the color of the elements was arranged in such a way that the percept was biased towards the two different motion percepts. We oriented attention automatically to one of the Ternus elements by shortly increasing its luminance. We expected that a stronger weighting of the attended element's color and thereby its bias would affect how correspondence is solved in the Ternus display and thus which motion percept is seen. The results showed that attending different Ternus elements influenced the motion percept, suggesting that automatic attention can influence object correspondence in the Ternus display.

Emotional source memory: (Why) Are emotional sources remembered better?

Nikoletta Symeonidou, University of Mannheim
nsymeoni@mail.uni-mannheim.de

Emotion-enhanced memory (EEM) describes the robust memory advantage of emotional over non-emotional stimuli. While extensively investigated with emotional items, EEM has been largely ignored with regard to emotional source information. Filling this gap, this research program will test if there is a source memory benefit for emotional sources and systematically investigate the nature of this effect. More specifically, the first series of experiments will focus on the independent contribution of valence versus arousal to the emotional source memory benefit. The aim of the second series is to investigate whether this memory benefit rests upon controlled and automatic attentional mechanisms, respectively. Finally, the third experimental series will focus on threatening sources, and examine if they show an additional source memory advantage over negative but non-threatening sources due to their higher survival relevance. Standardized emotional sounds will be used to manipulate source emotionality. The experimental procedure will follow the standard source-monitoring paradigm, allowing analysis with the two-high threshold multinomial model of source monitoring (2HTSM; Bayen, Murnane, & Erdfelder, 1996) – a state-of-the art stochastic model for disentangling (item & source) memory from response bias. Altogether, the described research program is an important step towards identifying determining factors of source memorability and thus significantly contributes to source memory research.

How do masked conditioned stimuli prime reactions to valent targets?

Philine Thomasius, University of Cologne
philine.thomasius@uni-koeln.de

We replicated and extended a study by Greenwald and De Houwer (2017) in which subjects had to categorize valent words as either pleasant or unpleasant. These target words were preceded by pattern masked primes (nonsense letter strings). In the learning phase one prime (CS+) was always presented before pleasant targets, while the other prime (CS-) was presented before unpleasant targets (100 % contingency). In the subsequent test phase both primes were used before pleasant and unpleasant targets (50 % contingency). The sensitivity was higher in congruent (learned pairs) than in incongruent trials. In three experiments we investigated how this priming effect can be explained. Did the masked CS prime a motor reaction or the perceptual processing of the target? Did the prime acquire the valence of the targets with which it was paired (evaluative learning)? We did not find evidence for any of these possibilities. There still remain different mechanisms by which the priming effect could be explained. Mainly these are response priming (on a higher level than that tested by our key-assignment operationalization) and semantic priming.

Reorganization of spatial configurations in visual working memory

David Timm, University of Tübingen
dtimm@psycho.uni-tuebingen.de

Humans process single objects in relation to other simultaneously maintained objects in visual working memory – a spatial configuration. Are humans able to reorganize a global spatial configuration into a relevant partial configuration? We present three experiments investigating this process. Participants encoded objects' locations and performed a change detection task for one object probed at retrieval. This object was displaced in half of the trials. We cued the side of the object probed either during encoding or afterwards (retro-cue), allowing for the reorganization of spatial configurations either during encoding or in working memory. At retrieval, either all objects, cued objects only, non-cued objects only or a single object were shown. Furthermore, we investigated the use of the cue and configurations themselves. We observed a reliable reorganization both when cued during encoding and also under all retro-cue conditions. Our findings provide evidence for a memory-based reorganization of spatial configurations.

Wissenschaftler*innen vernetzen wir uns!

Anne-Sophie Waag, University of Mannheim
awaag@mail.uni-mannheim.de

Trotz der unterschiedlichen Arbeitsrealitäten, die den verschiedenen Fachdisziplinen zuzuschreiben sind, eint uns, den sogenannten wissenschaftlichen Nachwuchs, einiges: Befristungen, Teilzeitverträge und hohe Arbeitsbelastung, aber auch Autonomie, Innovationsgeist und intrinsisches Interesse am Thema. In diesem Spannungsfeld sind hoch ambivalente Gefühlszustände vorprogrammiert. Deskriptiv zeigt sich, dass männliche Wissenschaftler diese Phase bezogen auf eine universitäre Karrierelaufbahn erfolgreicher durch-/bestehen als ihre weiblichen* Kolleginnen (das Phänomen ist bekannt als „leaky pipeline", z.B. Pell, 1996). Die Gründe dafür können unter anderem auf individualer, sozialisatorischer aber auch struktureller Ebene verortet werden. Es existieren verschiedene Gleichstellungsstrategien, die sich sowohl mit dem individuellen Empowerment der Frauen* als auch der Behebung struktureller Benachteiligungen beschäftigen (z.B. Gleichstellungsplan Universität Mannheim, 2013). Darüber hinaus kann die Bildung von Frauen*netzwerken eine Möglichkeit darstellen, geschlechtsbedingten Disparitäten entgegenzuwirken (van den Brink & Benschop, 2014). Das WUMAN Netzwerk hat das Ziel, Wissenschafter*innen in Mannheim eine informelle und niederschwellige Plattform zum Austausch zu bieten. Darüber hinaus soll der Informations- und Wissensaustausch gefördert sowie interdisziplinäre Forschungsprojekte angestoßen werden. Nach einem guten halben Jahr ziehen wir erste Bilanz und freuen uns, das Konzept, unsere Erfahrungen und ersten Erfolge mit euch zu teilen.

Source guessing = automatic vs. controlled? Evidence from younger and older adults

Liliane Wulff, University of Mannheim
lwulff@mail.uni-mannheim.de

According to the probability-matching account, people guess the origin of information based on prior knowledge (e.g., stereotypes) when they cannot perceive the item-source contingency accurately. We investigated the nature of the underlying processes of stereotype and contingency-based source guessing in both younger and older adults using a source-monitoring task with age-stereotypic item material. We manipulated the time point when participants received specific source information (age; at encoding vs. at test) and cognitive load during the memory test (load vs. no load due to a dual task; only in younger adults) between subjects. Multinomial processing tree based analyses revealed that, under full attention at test, younger participants who knew the sources' ages at encoding guessed the source based on the item-source contingency; participants who learned the sources' ages only at test guessed based on age stereotypes. Source guessing was comparable under load versus no load indicating an automatic, resource-independent process. When sources' age was available at encoding, stereotype-based source guessing was counteracted by the contingency perception irrespective of the cognitive-load manipulation. Older adults with age-related declines in cognitive resources tended to counteract stereotype-based source guessing based on contingency perception as well when they were able to perceive the item-source contingency at encoding. Overall, the results suggest that both stereotype and contingency-based source guessing reflect automaticity rather than controllability.

Credit assignment and reinforcement learning in environments with multiple feedback cues

Franz Wurm, University of Eichstaett-Ingolstadt
franz.wurm@ku.de

In problem-solving paradigms, links between actions and corresponding outcome feedback are not necessarily clear and obvious for the decision maker. Especially in probabilistic and volatile environments, the credit assignment problem arises from insufficient information on environmental contingencies. In the present study, we investigated the mechanisms capable of solving the credit assignment problem in a reinforcement learning framework. We employed probabilistic learning tasks with multiple independent stages. Although decisions on each stage were rewarded separately, color-coded feedback cues were presented parallelly. Between the experiments, feedback cues differed regarding their informational values. After each experiment, a transfer devaluation task was employed, which could only be solved, when stage-color associations were established during the learning task. As predicted, findings from both learning tasks and transfer tasks clearly indicate the formation of credit assignment associations between stages and feedback colors. However, emerging associations were dependent on the informational value of the feedback cues. Computational models of reinforcement learning were used to further elucidate the underlying mechanisms of (mal)adaptive credit assignment.

Hindsight bias in judgments of learning (JOLs)

Malte F. Zimdahl
malte.zimdahl@psychologie.uni-mannheim.de

Hindsight bias – one of the most prominent judgment illusions – refers to the influence of outcome knowledge on recollected judgments. Typically, recollected judgments are closer to the correct answer than original judgments made before the correct answer is revealed. Two experiments investigated whether outcome knowledge also affects judgments of learning (JOLs). Both experiments contained a learning phase and a test phase. In the learning phase, participants studied 60 word pairs and made a JOL for each word pair. In the test phase, they recollected their original JOLs either after attempting to recall each item (Experiment 1, $N = 58$) or before vs. after attempting to recall half of the items (Experiment 2, $N = 101$). Results showed that outcome knowledge produced a hindsight bias on JOLs, with higher recollected JOLs than original JOLs for correctly recalled items and lower recollected JOLs than original JOLs for not recalled items. Thus, the current study supports the idea that outcome knowledge affects JOLs as it does with judgments about the external world.

Notes

Notes

WUMAN? DAS IST EIN NETZWERK FÜR STUDENTINNEN*, DOZENTINNEN* UND FORSCHERINNEN* (IN MANNHEIM). WIR BESCHÄFTIGEN UNS MIT THEMEN DER **GLEICHSTELLUNG UND DIVERSITÄT** UND ENGAGIEREN UNS DAFÜR AUCH HOCHSCHULPOLITISCH. UNSERE ZIELE SIND DER INTER-DISZIPLINÄRE AUSTAUSCH UND DIE VERNETZUNG INTERESSIERTER **WISSENSCHAFTLERINNEN***. WIR TREFFEN UNS EINMAL MONATLICH, LADEN SPANNENDE SPEAKER*INNEN EIN, ORGANISIEREN PODIEN UND WORKSHOPS, ESSEN, DEBATTIEREN UND LACHEN GEMEINSAM! **KOMM VORBEI** ☺

ODER KONTAKTIERE UNS, WENN DU DAS AUCH AN DEINER UNI STARTEN WILLST ☺

WUMAN

WISSENSCHAFTLERINNEN*NETZWERK

MEHR INFORMATIONEN

WUMAN

WUMANetzwerk

WUMAN.frauennetzwerk

www.wuman.de

wuman@wuman.de

https://kurzelinks.de/7qtb

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