* was, wenn eine/alle Hypothesen (nicht) zutreffen? sind die Modelle zu verschachtelt?
* sollte ich mich auf einen Teilbereich einschränken?
* Moral foundations messen und Gruppenunterschiede in ABC?
* was ist die message des projekts? 🡪 Storytelling des Projekts

The study aims at identifying the role of spontaneous stereotypes (as proposed by the 2D ABC model of stereotype content; Koch, Imhoff, Dotsch, Unkelbach, & Alves, 2016) in fairness evaluations and the identification of impartiality acknowledgements of people with different beliefs. Previous research has identified agency (A) and beliefs (B) as two basic dimensions people spontaneously use when making judgments about social groups. Communion (C) appears to be important in spontaneous stereotypes, too, as proposed by the stereotype content model (SCM; Fiske, Cuddy, Glick, & Xu, 2002). In the ABC model, C appears to be located centrally in the 2D space created by the two axes A and B, rather than being an axis of its own. It was found that while A and B are consensual across raters, C is more personal, which is why, averaged across raters, the ABC model only showed two axes (A and B) with C as centrality ([“ABC SCM Reconciliation”, Koch et al.]). In another study, C was then assessed on an individual level and it then became apparent that instead of being central, C was related to the similarity of A and B with more similar groups having higher scores on C. The ABC model was obtained with a data-driven approach. Both, the spontaneous stereotype dimensions as well as a constellation of 30 social groups representative of today’s society were derived from participants’ spontaneous responses. To validate the selection of social groups, another data source was used to determine the most relevant groups, namely the occurrence of the groups in digital books published in recent years (Koch et al., 2016).

Thus far, the ABC model has explained the relevance of perceived intergroup similarity in cooperation ([“ABC intergroup cooperation”, Koch et al.]), and that the effect of perceived similarity in extreme beliefs on cooperation is mediated by the importance of one’s own beliefs (“Woitzel, 2019”). We propose that judgements of fairness are influenced by group stereotypes, too, since fairness evaluations arise in social interactions, including cooperation, and the distribution of goods and services in a broader social context (Liberman & Shaw, 2017). We propose that the ABC model, specifically the two dimensions agency and beliefs, will aid in better understanding the relation of fairness and group stereotypes in society.

Distributive fairness is concerned with the distribution of goods amongst different entities (i.e. groups or individuals). According to Adams’ equity theory (1965), three principles play a major role in distributive fairness, depending on the context: *Equity* (evaluation of input-output congruency) is preferred in economic contexts, *equality* (all parties receive an equal share) plays a role in social contexts and *need* plays a bigger role in the context of personal wellbeing (parties receive goods as a function of their needs). Kazemi, Eek, and Gärling (2016) indicate that in a study of public good dilemma, use of the three principles depends on the group’s goal, with need being a social concern, equality being linked to harmony, and equity being linked to economic productivity. As equity considers the amount of work that different individuals have contributed, it is not surprising that it is closely related to economic concerns. The use of equality and need, however, seems to be dependent on social and interpersonal variables more, such as reciprocity or empathy (Blader & Rothman, 2014). While the three principles and their relevance in social interaction have been studied and discussed amply (Deutsch, 1975; Lamm & Schwinger, 2010; Wagstaff, 1994), they do not explain why people are concerned with fairness in the first place.

One perspective reviewed by Shaw (2013) is that fairness functions to signal impartiality to others, as people have a partiality aversion: Partiality can be interpreted as initiating alliance formation, and this in turn poses a threat to those who are not involved in the alliance. In incidences of resource allocation, partiality can easily be revealed, and thus, the person accused of partiality may face sanctions and condemnation (Shaw, 2013; Shaw & Olson, 2012). Alliance building is important to humans, but it may be done more privately to avoid the consequences of public partiality. For example, Liberman and Shaw (2017) showed that children 7 years and older use partiality to predict which third parties are socially affiliated. Shaw (2013) states that fairness in dyadic interactions functions as generosity and reciprocity, and to promote cooperation, but when three or more people get involved, fairness is a mean by which they can prove that they are impartial.

The impartiality account predicts that fairness can be achieved with different methods that do not necessarily imply an equal allocation of resources. For instance, societal acknowledgements that justify inequality should not be perceived as unfair (e.g. need or work), because they are not interpreted as partial (Shaw, 2013). Societal groups differing in their beliefs will stress different factors that they consider when making fairness decisions and they will differ in their acknowledgements of what is impartial. In a study of morality and stereotypes, Graham, Nosek, and Haidt (2012) showed that liberals and conservatives have different stereotypes about how the other group makes moral judgements.

**Present Research**

So, the main question we ask is how are the ABC model’s stereotype dimensions linked to impartiality acknowledgements of groups, and thus, the perception of fairness?

We propose that progressives share impartiality acknowledgements, and impartial (in their understanding) distributions will be judged as fair. Conservatives share impartiality acknowledgements, too, which are also the basis of their fairness evaluation. While there will be some shared acknowledgements, we propose that people differing in their beliefs will also differ in their impartiality acknowledgements. Further, stereotypes about societal groups will influence the evaluation of fairness as well. The first part of this research will thus focus on what impartiality acknowledgements are made by people with different beliefs regarding the equity, equality and need principle. The second part will examine the interplay of beliefs and stereotypes and their effect on fairness evaluations of economic game scenarios.

To test the following hypotheses, participants will be asked to provide information about their group identity and to rate the fairness of resource allocations in economic game scenarios. (For methodological examples see DeScioli, Massenkoff, Shaw, Petersen, & Kurzban, 2014 or Koch et al., 2016). Different experimental conditions will include group identification of the parties partaking in the economic game, conditions of un-/equal work, conditions of un-/equal need and conditions without mentioning identification, work or need. Participants will be making their judgements from the perspective of an observer of an allocation between a distributor who decides how to allocate resources between two recipients, or between himself and one other recipient. The social groups will be varied (pseudo-)randomly to obtain various group constellations similar and dissimilar in A and B, and thus, C.

**Impact of Present Research**

This work could be a valuable contribution (if conducted reliably) to understanding psychological mechanisms of stereotyping, fairness and belief systems in a societal context. It can be used to further study mechanisms and techniques that can meliorate societal barriers between groups with conflicting beliefs. Our work can thus provide theoretical insights for applied scientists, behavioral insights teams and policymakers to develop social policies and communication guidelines that will be more consensual and yet help tackle societal disparities like the wealth gap.

**Main Hypotheses**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Abbreviations in the table below: A/B/C = agency/beliefs/communion, PB = progressive beliefs, CB = conservative beliefs, EEN = equity/equality/need, FE = fairness evaluation, GI = group information (i.e. 30 previously identified societal groups), LM = linear model, DV = dependent variable | | | | | |
| **Topics** | **Question** | **Hypothesis** | **Sampling plan (e.g. power analysis)** | **Analysis Plan** | **Interpretation given different outcomes** |
| Impartiality | Do B and EEN predict impartiality ratings? Do people with PB respond more strongly to need? | Interaction between B and EEN: PB + equality/need = higher impartiality.  PB + equity = low impartiality.  CB + equity = higher impartiality.  CB + equality/need = lower impartiality |  | LM with B as predictor and EEN as categorical predictor and an interaction effect | Sig: impartiality acknowledgements differ between PB and CB depending on the distribution principle applied  n.s.: differences in B and EEN do not interact in the prediction of impartiality |
| Impartiality | Do people with PB always value equity in work-payment conditions? | 1: PB + difference in work input = equity preferred over equality  2: In a conflict between equity and need, PB prefers the need-principle more than CB |  | 1: LM with B as predictor and preference for equity as DV  2: LM with B as predictor and preference for need-principle as DV | 1: sig: PB responds to equity when distribution is a reward for work  n.s.: response to equity is independent of B  2: sig: PB responds more strongly to need and values it over equity  n.s.: response to need over equity is independent of B |
| Exploration: Reasons for impartiality differences | What reasons can explain the differences in impartiality acknowledgements between PB and CB? | Maybe PB have a higher global citizen identification and exercise alliance formation with a broader ingroup definition that includes a more diverse set of subgroups |  | Correlation/LM with B as predictor and global citizen identification as DV | Sig.: global citizen identification as a possible link to impartiality and alliance formation, but needs further in-depth study  n.s.: maybe less relevant but should be subject of further in-depth study |
| Fairness and Stereotypes (A,B) | Can a person’s B and the provided GI and the use of EEN predict their FE of economic games? | GI as significant predictor of FE |  | LM | (non) Sig: FE generally (not) dependent on GI, but more concrete hypotheses needed |
| Fairness and Stereotypes (A,B) | Is a general unequal distribution differentially rated depending on own B and GI provided about the distributor? | Interaction between B and GI in unequal distributions: PB + GI (high A and CB) = less fair;  PB + GI (low A and PB) = more fair;  CB + GI (low A and PB) = less fair  CB + GI (high A and CB) = more fair |  | LM with interaction | Sig.: people use group stereotypes in FE; depending on their own B and the GI provided, their FE changes  n.s.: people do not use group stereotypes (at least not the way predicted); FE do not seem to depend on a person’s B and the GI provided |
| Fairness and Stereotypes (A,B) | Does mentioning work contributions alter the FE, depending on B and GI? | No influence of B and GI on FE when distributor allocates resources in accordance with work input of recipients; if allocation is not done according to work input, this will be perceived as unfair unanimously |  | Equivalence testing | if hypothesis is supported, then equity in accordance with work input is consensual across B spectrum and independent of group stereotypes |
| Fairness and Stereotypes (A,B) | Do one’s B and GI about A predict tolerance of unequal distributions? | PB tolerate unequal distribution (self-interest) more willingly than CB, if distributor is low in A, especially so if receiver is high in A |  | LM with B as predictor and  Inequality tolerance as DV | Sig: could indicate that PB approve redistribution of resources more than CB to reduce societal inequalities  n.s.: tolerance of unequal distribution is not predicted by B and GI about A |
| Fairness and Stereotypes (A,B) |  | When the above (different work input) conflicts with need,  B will predict FE; PB prefers the need-principle more than CB |  | LM with B as predictor and preference for need-principle as DV | sig: PB responds more strongly to need and values it over equity  n.s.: response to need over equity is independent of B |
| Fairness and Stereotypes (A,B) | Do people’s assumptions about distributors’ A/B depend on equal/equitable distributions? | Equal distributions will be attributed to PB and low A.  Equitable distributions will be attributed to CB and high A. |  |  |  |
| Fairness and Stereotypes (C/similarity in A,B) | Does C correlate positively with FE/impartiality acknowledgements? | C and FE correlate since C is explained by similarity in A,B which means impartiality acknowledgements are shared, which means fairness evaluations are similar |  |  | n.s.: if no methodological issues apply, something in the theoretical reasoning has gone wrong/was overlooked |

**Thoughts and Annotations**

* Design thinking für die Themenfindung
* Idee ohne viel Nachdenken mit dem Ziel, sie wieder zu verwerfen und dann darauf aufbauen
* Deadlines setzen (z.B. 2 Minuten Zeit für Überlegen der Struktur, dann Stift absetzen)
* emotionale Reaktion auf die ABC stereotype messen?
* ist es ausreichend, distributive fairness zu beleuchten, oder sollten auch prozedurale und interaktionale fairness beleuchtet werden?
* connection wipsy: HR Analytics seminar 🡪 organisationale Rahmenbedingungen 🡪 wahrgenommene Fairness (4 Formen) 🡪 *Frage: gibt es Unterschiede in der wahrgenommenen Fairness?(knüpft an meine Fragestellung an)*
* falls die Annahmen/Schlussfolgerungen von dem anderen Student von Alex gegen meine Überlegungen sprechen, könnte man sich überlegen, diese competing accounts gegeneinander zu testen (Bayesian methods)

Talk mit Hans:

* learning theory-based explanations
* Hans guess: high agency = stress equity principle vs. low agency = stress equality and need
* warmth/communion is a good/bad evaluation, less consensus
  + fairness similar = also good/bad evaluation 🡪 clash of cultures (moral, fair, nice), less consensus
  + agency, beliefs = high consensus and „objective” or at least agreed upon criteria
  + evaluative Fragen sind die, die mit großem Dissens verbunden sind
    - oft auch die Fragen, in denen Personen sich sicher über ihre Meinung sind, also Themen mit den überzeugtesten Meinungen
    - polarisierung 🡪 unterrepräsentation der moderaten Meinung
    - schwer zu erklären
    - Verdacht, dass die Dimensionen wenig objektivierbar sind und von Glaubensfragen abhängen
* Ad-hoc-scales are not good to use, since they are not validated. Thus, they should be validated before they are used in the actual study.
* Brandt2021 shows that DIF (differential item functioning, measurement invariance) occurs between self-identified liberals vs. conservatives on various psych. measures, but the impact on the resulting conclusion is rather small and can be reduced by an adjustment.
* Petersen2020: minimal group paradigm: individuals will use fairness more than ingroup favoritism as opposed to people acting as part of one group, where ingroup favoritism will occur more than fairness. This might be due to a stronger draw towards intergroup behavior in group situations and a stronger draw towards interindividual behavior in individual situations.

Registered Report questions:

1. Do the proposed hypotheses make sense in light of the theory or application? Are they defined precisely? Can they answer the research question?

2. Is the protocol sufficiently detailed to enable replication by an expert in the field, and to close off researcher degrees of freedom?

3. Is there an exact mapping between theory, scientific hypotheses, sampling plan (e.g power analysis, where applicable), the pre-registered statistical tests, and the interpretation given different outcomes?

4. Does the power analysis (or alternative sampling plan) reach the minimum threshold required by journal policy (e.g. 90% power, BF>6)?

5. Does the sampling plan for each hypothesis propose a realistic and sufficiently well justified estimate of the effect size?

6. Have the authors avoided the common pitfall of relying on conventional null hypothesis

significance testing to conclude evidence of absence from null results? (could use Bayes factors or equivalence testing instead)

7. Have the authors avoided all discussion of exploratory analyses, apart from those that

are necessary to explain in order to justify specific design features?

8. Have the authors clearly distinguished work that has already been done (e.g. pilot

studies) from work yet to be done?

9. Have the authors pre-specified positive controls or other data quality checks, or justified

their absence? Is the design sufficiently well controlled in all other respects?

10. When reporting positive controls that rely on inferential testing, have the authors included a sampling plan or power analysis that meets the minimum requirement?

Further thoughts

* Economic models wrongly assume that the only goal is profit maximization, although experiments show otherwise (2018\_Shaw\_ShareTheWealth)
* “Because fairness specifically undermines alliance building, factors that increase the importance of alliance building should cause people to place less value on signaling their impartiality, because shoring up alliances will be more important.“ 🡪 Future: how are ppls concerns with fairness calibrated by environmental & cultural factors? (2013\_Shaw\_Beyond)

References

Adams, J. S. (1965). Inequity In Social Exchange. *Advances in Experimental Social Psychology*, *2*, 267–299. https://doi.org/10.1016/S0065-2601(08)60108-2

Blader, S. L., & Rothman, N. B. (2014). Paving the road to preferential treatment with good intentions: Empathy, accountability and fairness. *Journal of Experimental Social Psychology*, *50*, 65–81. https://doi.org/10.1016/j.jesp.2013.09.001

DeScioli, P., Massenkoff, M., Shaw, A., Petersen, M. B., & Kurzban, R. (2014). Equity or equality? Moral judgments follow the money. *Proceedings. Biological Sciences*, *281*(1797). https://doi.org/10.1098/rspb.2014.2112

Deutsch, M. (1975). Equity, Equality, and Need: What Determines Which Value Will Be Used as the Basis of Distributive Justice? *Journal of Social Issues*, *31*(3), 137–149. https://doi.org/10.1111/j.1540-4560.1975.tb01000.x

Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of personality and social psychology*, *82*(6), 878–902. https://doi.org/10.1037/0022-3514.82.6.878

Graham, J., Nosek, B. A., & Haidt, J. (2012). The moral stereotypes of liberals and conservatives: Exaggeration of differences across the political spectrum. *PloS One*, *7*(12), e50092. https://doi.org/10.1371/journal.pone.0050092

Kazemi, A., Eek, D., & Gärling, T. (2016). Allocation of Public Goods. *Social Psychology*, *47*(4), 214–222. https://doi.org/10.1027/1864-9335/a000275

Koch, A., Imhoff, R., Dotsch, R., Unkelbach, C., & Alves, H. (2016). The ABC of stereotypes about groups: Agency/socioeconomic success, conservative-progressive beliefs, and communion. *Journal of Personality and Social Psychology*, *110*(5), 675–709. https://doi.org/10.1037/pspa0000046

Lamm, H., & Schwinger, T. (2010). Need Consideration in Allocation Decisions: Is it Just? *The Journal of Social Psychology*, *119*(2), 205–209. https://doi.org/10.1080/00224545.1983.9922822

Liberman, Z., & Shaw, A. (2017). Children use partial resource sharing as a cue to friendship. *Journal of Experimental Child Psychology*, *159*, 96–109. https://doi.org/10.1016/j.jecp.2017.02.002

Shaw, A. (2013). Beyond “to Share or Not to Share”. *Current Directions in Psychological Science*, *22*(5), 413–417. https://doi.org/10.1177/0963721413484467

Shaw, A., & Olson, K. R. (2012). Children discard a resource to avoid inequity. *Journal of Experimental Psychology. General*, *141*(2), 382–395. https://doi.org/10.1037/a0025907

Wagstaff, G. F. (1994). Equity, equality, and need: Three principles of justice or one? An analysis of “equity as desert”. *Current Psychology*, *13*(2), 138–152. https://doi.org/10.1007/BF02686797