

Gewroast, E, B, Z, & - 1a & 1b

(10) DOMAIN: A/1 = race, B/2 = ethnicity C/3 = gender-sex D/4 = food or drink

E/5 = other consumer F/6 = political G/7 = drugs or tobacco

H/8 = self esteem J/9 = personality/self K/10 = clinical

L/11 = relationships M/12 = other? (not a tony category)

p9 6 (11) BEHAVIOR: single=1, average=2

p9 1 (12) IAT TYPE attitude=1, belief=2, self=3, not reported = 4

(13) EM TYPE: attitude=1, belief=2, self=3, not reported = 4

p9 6 (14) OVERALL METHOD: not=0, observed=1

p9 6 (15) METHOD: RepPast=1, future=2, emotion=3, judge=4, obs=5, neuro=6, other=7

p9 6 (16) SCORE: millisecond=0, log=1, algorithm=2, NotReported=3

p9 5 (17) words=0, pictures=1, NotReported=2

p9 5 (18) number of IATs: 1

(19) IAT ORDER: NotReported=0, iatfirst=1, iatsecond=2, iatthird=3

(20) EXPLICIT ORDER: NotReported=0, explicitfirst=1, expsecond=2, explthird=3

(21) BEHAVIOR ORDER: NotReported=0, behfirst=1, behsecond=2, behthird=3

(22) IAT vs. behavior: NotReported=0, before=1, after=2, counter=3

(23) EXPLICIT vs. beh: NotReported=0, explicitfirst=1, expsecond=2, counter=3

(24) IAT SESSION: same=0, different=1

(25) EXPLICIT SESSION: same=0, different=1

p9 5 (26) IAT SOCIAL DESIRABILITY 1-7 5

(27) EXPLICIT SOCIAL DESIRABILITY 1-7

p9 6 (28) BEHAVIOR CONTROLLABLE: 1-10 5

p9 5, 16 (29) IAT SPECIFIC 1-7 3

(30) EXPLICIT SPECIFIC 1-7

p9 5 (31) OPPOSITION 1-5 2

p9 1 (32) RACIAL, 0=not, 1=racial

p9 5 (33) type of iat: single=1, dual=2, personalized=3

~~Handwritten scribbles~~

in
JESL
not JPSA

Note Rad, '01

N/A

N/A

N/A

N/A

Gerro: sand
1 (rac) had
old category
system?

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Running Head: ASSOCIATIVE STRENGTH AND IMPRESSION FORMATION

It's in the mind of the beholder:
Individual differences in associative strength moderate category-based and individuating
impression formation

Bertram Gawronski¹

Katja Ehrenberg²

Rainer Banse¹

Johanna Zukova¹

Karl Christoph Klauer²

¹ Humboldt-Universität zu Berlin, FRG

² Rheinische Friedrichs-Wilhelms-Universität Bonn, FRG

Mailing address:

Bertram Gawronski

Universität Würzburg

Psychologie II

Röntgenring 10

D-97070 Würzburg

Germany

e-mail: gawronski@psychologie.uni-wuerzburg.de

Abstract

Based on recent evidence for individual differences in stereotype activation, we claim that category-based and individuating impression formation is moderated by individual differences in the strength of associations between a social category and stereotypic content. In Experiments 1a and 1b, participants with strong stereotypic associations (measured with an Implicit Association Test, A. G. Greenwald, D. E. McGhee, & J. K. L. Schwartz, 1998) based their impressions on category as well as on individuating information. In contrast, participants with weak associations based their impressions only on individuating, but not on category information. Employing a multinomial model for the "Who-said-what?"-paradigm (K. C. Klauer & I. Wegener, 1998), Experiment 2 demonstrated that these effects are due to increased stereotyping and decreased individuation for perceivers with strong stereotypic associations compared to those with weak associations, rather than to individual differences in categorization.

("strong"). For perceivers with weak associations ("weak"), in contrast, a target's gender should have no informational value for a judgment of stereotypically related traits. Hence, their impression should be unaffected by a target's gender. Based on Brewer's (1988) dual process model of impression formation, associative strength was further expected to function as a cognitive determinant of interpersonal versus intergroup orientation, and thus to moderate the impact of individuating information. Specifically, we expected a target's domestic versus work responsibilities to have a greater impact on impression formation when perceivers' gender-stereotypic associations are weak than when they are strong.

Method

Overview

In two conceptually identical experiments, participants watched a videotaped interview of either a male or a female target about a gender-unrelated topic. In Experiment 1a, this interview was terminated by the target claiming either that he/she has to pick up his/her children from the kindergarten, or that he/she has an urgent business appointment. In Experiment 1b, the interview was terminated by the target claiming either that he/she has to go to the supermarket, since his/her children were coming home from school shortly, or that he/she has to go to work. After watching the videotape, participants were asked to rate the target on several traits stereotypically related to career and household. Finally, individual differences in associative strength between men and career-related items on one hand, and women and household-related items on the other were assessed using an adaptation of Greenwald, McGhee, and Schwartz's (1998) Implicit Association Test.

Participants and Design

A total of 122 students (70 female) took part in one of two studies ostensibly concerning recent changes in a particular neighborhood in Berlin, Germany (Berlin-Mitte). Participants in Experiment 1a received credit for research participation requirements ($N = 59$); participants in Experiment 1b were paid 10,- DM (~US-\$ 5) ($N = 63$). Both experiments consisted of a 2 (category information: male vs. female target) x 2 (individuating information: domestic responsibilities vs. work responsibilities) x 2 (associative strengths: strong vs. weak) factorial design. Participants in each experiment were randomly assigned to one of the four experimental conditions implied by the manipulations of category and individuating information. Associative strength was introduced quasi-experimentally by a median-split of IAT-scores. Experimental sessions were run individually. Data from three participants were excluded from analyses. One participant questioned the authenticity of the interview; one knew the target in the interview; and one exhibited an IAT-score of more than 5.8 standard deviations higher than the mean of the total sample. This removal did not change the overall pattern of results.

Procedure

On arrival, participants were welcomed and informed that they were taking part in a study concerning recent changes in Berlin-Mitte. The experimenter explained that a number of short interviews with inhabitants of Berlin-Mitte were conducted, and that each participant would watch one of the videotaped interviews. Videotapes were then randomly assigned by drawing lots. The clips began with a documentary about recent changes in Berlin-Mitte. The second part of the videotape consisted of a short sequence in which a female interviewer approached either a male or a female passerby (a confederate of the experimenters), asking if he/she had some time for a short interview concerning recent changes in Berlin-Mitte. After a few gender-unrelated questions (e.g., age, living in Berlin-Mitte, time of living there, liking

19-25

19-15
 living there, and personal opinions concerning recent changes in Berlin-Mitte) the target person terminated the interview. In Experiment 1a, the termination was excused either by the claim to have to pick up his/her children from the kindergarten (domestic responsibility), or by the claim to have an urgent business appointment (work responsibility). In Experiment 1b, targets claimed either to have to go to the supermarket since the children were coming home from school shortly (domestic responsibility), or to have to go to work (work responsibility). Targets in Experiment 1a were dressed in winter clothes; targets in Experiment 1b wore summer clothes. Clothing of the targets was ambiguous with respect to professional or informal dressing and comparable in styling and color, respectively.

After watching the videotape, participants were asked to respond to a short questionnaire containing a number of questions about the target's opinion on recent changes in Berlin-Mitte and his/her personality. After completion of the questionnaire, they were administered an Implicit Association Test (Greenwald et al., 1998) to assess participants' gender-stereotypic associative strengths. Finally, participants were probed for suspicion, debriefed, and thanked for participation. Participants who were interested in the results received a short report after conclusion of the experiments. B-I

Measures

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Implicit Association Test. To assess participants' idiosyncratic associative strengths between men and career-related items on one hand, and women and household-related items on the other, an Implicit Association Test (Greenwald et al., 1998) was used. The IAT was implemented on 486 IBM-compatible computers using the software Experimental Run Time System, ERTS (Beringer, 1994).

Following Greenwald et al. (1998), the IAT consisted of five blocks (Table 1). In the initial target-concept discrimination task (Block 1), 10 male and 10 female names (see Appendix A) had to be assigned to the categories "man" or "woman", respectively. Participants were asked to press a left-hand key ("a") when a male name appeared on the screen, and a right-hand key ("5" of the number block) in the case of a female name. In the attribute discrimination task (Block 2), 10 career- and 10 household-related nouns were presented (see Appendix A) and had to be classified according to the categories career (left-hand key) and household (right-hand key). In the initial combined task (Block 3), target and attribute discrimination trials were presented in alternating order. Participants had to press the left-hand key when either a male name or a career-related noun was presented, and the right-hand key when a female name or a household-related noun was presented. In the reversed target-concept discrimination task (Block 4), the initial target-concept discrimination was repeated with a switch of the categorization keys. The reversed target-concept discrimination task (Block 5) again combined the two individual tasks, now in a stereotype-inconsistent manner. Participants had to press the left-hand key when either a female name or a career-related noun was presented, and the right-hand key when a male name or a household-related noun was presented.

Each block started with a short instruction of the following task and a request to respond as fast as possible even if this would lead to errors. The three discrimination tasks (Blocks 1, 2, and 4) consisted of a total of 40 trials, respectively. The two combined tasks (Blocks 3 and 5) each comprised 120 trials (60 names, 60 nouns). The same randomized order of trials was used for all participants. The response-stimulus interval following correct responses was 250 ms. Wrong responses were indicated with the word "Error!" appearing for 1000 ms below the center of the screen.

Trait-Ratings. To assess participants' impressions of the target, they were asked to rate the interviewee on twelve traits stereotypically related to career or household on five-point

11 scales ranging from 1 (= not true) to 5 (= true). Traits were selected on the basis of a pretest concerning traits stereotypically associated with career or household. Traits are printed in Appendix B. In addition, a number of gender-neutral positive and negative filler traits were included to prevent suspicion about the topic of the experiment.

Results

Implicit Association Test

16 Response latencies higher than 3000 ms were replaced by this value, latencies lower than 300 ms were recoded to missing values. Error trials were excluded from analyses. Individual IAT-scores were calculated by subtracting mean response times of the initial combined task (Block 3) from the mean latencies of the reversed combined task (Block 5). This score was interpreted as an index for participants' idiosyncratic associative strengths between men and career on one hand and women and household on the other, with higher scores indicating stronger associations. Collapsing Experiments 1a and 1b, IAT-scores ranged from -207.56 ms to 579.79 ms ($M = 127.08$, $SD = 107.81$). There was no significant difference between male and female participants ($M_{\text{male}} = 129.33$, $M_{\text{female}} = 125.50$), $t(56) = -.19$, ns. Since there were also no reliable effects of perceivers' gender in our dependent measures, this variable was dropped from further analyses. Reliability of the IAT was calculated by a triplicate split, revealing an internal consistency of Cronbach's $\alpha = .80$. To obtain groups with weak and strong associations, the total sample was divided by a median-split ($MD = 106.49$). Again collapsing Experiments 1a and 1b, participants with strong ($M = 202.18$; $SD = 95.43$) and weak ($M = 53.22$; $SD = 55.73$) associations were distributed approximately uniformly over the four experimental conditions with ns ranging from 13 to 17.

Trait Ratings

30 Based on the outlined theoretical assumptions, we expected "strongs" to rate a female target higher in household-related traits (and correspondingly lower in career-related traits) than a male target regardless of his or her responsibilities. In contrast, "weak" were expected to rate the target higher in household-related traits (and correspondingly lower in career-related traits) when he or she has domestic responsibilities than when he or she has work responsibilities regardless of the target's gender.

To test this prediction, mean ratings of traits stereotypically relating to career and household were merged into a single index of communal versus agentic orientation (Cronbach's $\alpha = .79$) by reverse scoring the traits stereotypically related to career. Hence, high values indicate higher ratings of communal orientation and lower ratings of agentic orientation. For the sake of simplicity, we refer to the index as communal orientation, rather than as communal versus agentic orientation. This index was submitted to a 2 (experiment: 1a vs. 1b) x 2 (category information: male vs. female target) x 2 (individuating information: domestic responsibilities vs. work responsibilities) x 2 (associative strength: strong vs. weak) analysis of variance (ANOVA). Most important to notice, this analysis revealed neither a significant main nor any interaction effect of the experiment factor. Hence, any of the results reported below have to be interpreted as being stable across the two experiments.

A significant main effect of the target's gender, $F(1, 103) = 12.50$, $p < .01$, indicated that the male target was rated lower in communal orientation ($M = 2.62$) than the female target ($M = 2.91$). Additionally, a significant main effect of individuating information indicated that targets with domestic responsibilities were rated higher in communal orientation ($M = 3.01$) than targets with work responsibilities ($M = 2.52$), $F(1, 103) = 34.50$, $p < .001$. These main effects were qualified by a significant two-way interaction of category and individuating information, $F(1, 103) = 4.67$, $p < .05$, indicating that the impact of

IAT α

B α
(also see
p. 12-
next
studies)