

## The influence of success and failure experiences on agency

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### *Abstract*

*Agency is—besides communion—a basic dimension of traits. It can be specifically linked to behavioral outcomes, to status, mastery, self-esteem and to success. The present paper analyzes the situational malleability of agency. Two studies tested whether an individual's agency (but not communion) is situationally influenced by the experience of success versus failure at a task, as well as whether this effect is the same for men and women. Supporting our hypotheses, the induction of success versus failure experiences led to changes in agency that were independent of actual performance, independent of type of task (memorizing vs. face recognition), independent of induction methodology (easy vs. difficult task vs. manipulated performance feedback), and independent of self-esteem, initial level of agency and of the participants' gender. Communion was not influenced by this kind of experience. Implications for both the basic dimension of agency and for theories on gender and gender stereotypes are discussed. Copyright © 2007 John Wiley & Sons, Ltd.*

Agency and communion are fundamental dimensions of traits and person descriptors. Agency manifests itself in self-protection, self-assertion, and self-expansion and is a superordinate theme encompassing mastery and control; communion manifests itself in the sense of being at one with others, in non-contractual cooperation, in relatedness and sharing (Bakan, 1966). The present paper is concerned with the dynamics of peoples' agentic characteristics. In longitudinal research it was demonstrated that trait agency changes in dependence on vocational success, and that this effect is the same for men and women (Abele, 2003). An experimental replication is still lacking. The present paper presents two studies that experimentally tested the influence of specific success versus failure experiences on the participants' state agency. We predicted that state agency is reduced after failure experiences and enhanced after success experiences. Compared to a longitudinal study the experimental situation is more standardized and findings in line with our hypotheses would be important because of three reasons: First, they would allow drawing a causal link between success/

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failure experiences and agency; second, they would support the assumption that agency is indeed a mastery-related trait; and third, they would be important with respect to research on gender because agency is stereotypically tied to the male gender stereotype. The present data will show whether the link between agency and 'male' is still warranted.

## THE FUNDAMENTAL DIMENSIONS OF AGENCY AND COMMUNION

Agency and communion are fundamental dimensions underlying judgments of persons, groups, and the self (Abele & Wojciszke, 2007; Judd, James-Hawkins, Yzerbyt, & Kashima, 2005; Moskowitz, 2005; Paulhus & John, 1998). They are superordinate factors of personality which broadly cover the dominance/ambition (agency) versus nurturance/warmth (communion) dimensions of the interpersonal circumplex (Wiggins, 1991), and they can be related to the tendencies of egoistic versus moralistic biases in self-description (Paulhus & John, 1998). Agency is correlated with self-esteem (Helgeson & Fritz, 1999), with power motivation (Saragovi, Aubé, Koestner, & Zuroff, 2002), with mastery and achievement related goals (Pöhlmann, 2001), with self-efficacy (Hermann & Betz, 2004), and with psychological well-being (Helgeson, 1994). Communion is correlated with secure attachment styles (Bartz & Lydon, 2004), with affiliation and with intimacy related goals (Pöhlmann, 2001).

## THE DYNAMICS OF AGENCY

Although agency is a relatively stable trait, it may also be a dynamic state malleable in response to situational conditions. Hannover (1997), for instance, showed that the agentic self-concept of children was responsive to the tasks they completed. Moskowitz, Suh, and Desaulniers (1994) found that people rated themselves as more agentic in situations where they interacted with a supervisee than in situations where they interacted with a boss. Occupational contexts enhance the agentic state self-concept (Smith, Noll, & Bryant, 1999). In a longitudinal study Abele (2003) found that an individual's agency predicted his/her occupational success 18 months later. A reciprocal impact was also found whereby occupational success led to increases in agency. There are, hence a number of studies demonstrating that agency is dynamic. There are, however, no studies yet demonstrating that an experimental manipulation of success versus failure at a task has an influence on agency. The demonstration of such a situational malleability of agency would be theoretically important because this would suggest that the long-time dynamic of agency is based on accumulated short-time experiences.

## AGENCY AND GENDER

Agency is closely tied to 'masculinity' and represents the male gender stereotype (Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972; Williams & Best, 1990). Diekmann and Eagly (2000), however, have shown that the stereotypic association between agency and masculinity are becoming weaker (see also Eagly, 1987; Wood & Eagly, 2002). The differences of men's and women's self-assessed agency are becoming smaller over time, as well. Meta-analyses by Twenge (1997; 2001; see also Auster & Ohm, 2000), for instance, have shown that older studies revealed larger differences than younger ones. The rise of women's agency may be best explained as a result of their increasing

involvement in occupational roles. These studies therefore suggest that the stereotypic association between agency and 'masculinity' is not warranted any more. Demonstrating that the situational malleability of agency in response to success versus failure experiences is the same for men and women would further foster the argument that agency has to do with mastery experiences and not with gender.

## PRESENT RESEARCH

Summarizing, a number of studies suggest that an individual's agency may change in dependence on the roles he/she performs; and it may also change with the successes or failures the individual experiences. Contrary to the stereotypic assumption that agentic traits are 'masculine' and hence there should be gender differences in the impact of certain experiences on the individuals' agency the above studies suggest that relevant experiences have the same influence on both men's and women's agency. With regard to communion the variables tested in the above studies generally had no effects. The aim of the present research is an experimental demonstration of the influence an induced success versus failure experience has on agency. Such a demonstration is theoretically relevant because it validates longitudinal findings, because it further demonstrates the strong link between mastery experiences and agency, and because it shows that agency is not a gender-related trait.

Extending our previous reciprocal impact hypothesis between agency and success (Abele, 2003), a feedback-loop is postulated. Trait agency should foster success experiences. These should influence state agency that after successive feedback-loops may eventually lead to changes in trait agency, as well. In two experiments we test part of this hypothesis. We predict that state agency will vary with the experience of success or failure. Compared to the trait level state agency should increase after success and decrease after failure. We also predict that the effect is the same for men and women. And we predict that state communion will not vary with task-related success versus failure experiences.

There are already a few studies looking experimentally at the influence of success versus failure experiences on psychological states and it may be argued that they have already shown that success versus failure matters. However, the measures taken were rather specific. It has, for instance, been shown that self-efficacy beliefs increase after successful performance (cf. Bandura, 2001; Cervone et al., 2004), but in this research tradition self-efficacy is typically measured in a highly contextualized manner as a specific belief in own mastery. To our knowledge there have been no studies yet showing that situational success versus failure experience has a direct influence on very broad and general dimensions like agency.

## STUDY 1

We first performed a pretest that served at analyzing the stability of agency and communion in a 1-week period and without an experimental manipulation. Fifty-two students of a German University (43 women and 9 men aged between 18 and 35 years;  $M = 22$  years) answered the agency and communion scales with a trait instruction in a class context. One week later they answered the scales with a state instruction (scale descriptions and instructions see below). There were only small and non-significant gender differences in agency and communion. Most importantly, there were no differences between Time 1 and Time 2 in agency (Time 1:  $M = 3.39$ ; Time 2:  $M = 3.40$ ,  $t < 1$ ) and in communion (Time 1:  $M = 4.19$ ; Time 2:  $M = 4.18$ ,  $t < 1$ ). Seventy per cent of the deviations of the

corresponding means were between 0 and .14, the remaining were smaller than .79. These findings show that on average, agency and communion are stable in a 1-week period.

## Method

### *Participants and Procedure*

Forty-eight students of a German university took part voluntarily and received course credit for participation (28 women, 20 men; age range between 19 and 34 years;  $M = 25$  years; all studying arts and humanities). One week in advance of the experiment and in a mass-testing session they filled out a questionnaire that among others contained the agency and communion scales.

The experiment was run in individual sessions. On entering the laboratory an experimenter greeted the participant and handed out a written instruction. It explained that the participant should learn a number of meaning-free letter combinations consisting of four letters each, and should later recall as many of them as possible. In order to enhance the task's subjective relevance it was also explained that according to previous research memory performance is a valid predictor of overall study performance. Dependent on condition, the participant received a list of either 5 or 12 four-letter combinations, for instance 'Q, P, T, A', which had to be memorized within 5 minutes. Previous research had shown that individuals on average remember between four- and five-letter combinations and hence that 5 four-letter combinations are easy to remember, whereas 12 are very difficult (cf. Gendolla, 1999). At the end of the 5 minutes memorizing phase the experimenter collected the list. After a 1-minute break the participant received an answer sheet with depending on the experimental condition either 5 or 12 empty lines where the remembered letter combinations had to be written down. After another 2 minutes this answer sheet was taken away and the participant received a final questionnaire, which contained the agency and communion scales on the first page and the subjective performance evaluation on the second page. While the participants were filling out this final questionnaire, the experimenter counted the correct answers. Then the participant received his/her result and was informed that four to five correct answers are a good memory performance. Hence, most participants learned that their performance had been good. After a thorough debriefing the participant was dismissed.

### *Design and Measures*

The design was 2 (easy vs. difficult task) by 2 (gender) by 2 (pretest trait measures and posttest state measures of agency and communion) with random assignment to the first factor and repeated measures on the third one.

*Agency and Communion* We measured agency and communion with the positive agency and communion scales of the PAQ (Spence, Helmreich, & Stapp, 1974; German translation Runge, Frey, Gollwitzer, Helmreich, & Spence, 1981). The positive communion scale contained eight items (sample items 'very helpful to others', 'friendly'). The positive agency scale contained seven items (sample item 'feel superior', 'active').<sup>1</sup> Responses to these scales were made on 5-point scales each (1 = *not at all* to

<sup>1</sup>In the English version 'competitive' is the eighth item belonging to the positive agency scale. However, possibly due to another connotative meaning this item is uncorrelated with the other agency items in the German version (see for instance Abele, 2003). We therefore did not use this item in our analyses.

5 = *very much*). The scale reliabilities were satisfactory (agency, Cronbach's  $\alpha = .74$ ; communion, Cronbach's  $\alpha = .75$ ). In order to reduce possible memory effects in answering the agency and communion scales twice we included three additional adjectives from the neutral scale of the BSRI (Bem, 1974) in the first measure. These were not analyzed and were not included in the second measure. We also varied the sequence of adjectives between both measures. In the preexperimental assessment we used the standard trait instruction (*'please indicate how much each of the following traits applies to you'*). In the experimental assessment we instructed participants to answer how the traits apply to them 'right now.'

*Self-Esteem* Of relevance for our reasoning is research showing that individuals low in self-esteem responded more strongly to failure information than those high in self-esteem (Brown & Dutton, 1995; Dutton & Brown, 1997; Tafarodi & Vu, 1997). We therefore included self-esteem as a control variable and assessed it with the 'multidimensional self-esteem scale' (MSWS Schütz & Sellin, 2006) which consists of seven items answered on 7-point scales (1 = *not at all* to 7 = *very much*; sample item '*Do you doubt in yourself*'; Cronbach's  $\alpha = .71$ ).

*Performance and Manipulation Check* The number of correctly remembered letter combinations was the performance measure. A subjective performance evaluation at the end of the experiment served as the manipulation check (*'how was your performance in the memory task'*). It was answered on a 10-point scale (1 = *very bad* to 10 = *very good*).

## Results and Discussion

### *Descriptive Findings and Manipulation Check*

One participant was excluded from the analyses because memory performance was two standard deviations below the mean. Participants assigned to the easy or difficult task conditions did not differ in pretest agency ( $M = 3.52$ ), communion ( $M = 3.97$ ), or self-esteem ( $M = 5.14$ ), all  $t_s < 1.29$ , ns. Trait agency and state agency were highly correlated ( $r = .85$ ,  $p < .001$ ), as well as trait communion and state communion ( $r = .86$ ,  $p < .001$ ). Agency was also significantly correlated with self-esteem ( $r = .55$ ,  $p < .001$ ), but communion was not ( $r = -.10$ , ns). There were no gender differences in agency, and communion,  $t_s < 1$ , but men scored slightly higher in self-esteem ( $M = 5.46$ ) than women ( $M = 4.90$ ),  $t(45) = 1.99$ ,  $p = .05$ .

A 2 (gender) by 2 (easy vs. difficult task condition) factorial analysis of variance (ANOVA) on memory performance revealed no difference between conditions,  $F < 1$ , but an unpredicted interaction with gender,  $F(1, 43) = 5.39$ ,  $p < .05$ . Whereas there was no difference in the easy task condition (men  $M = 4.73$ , women  $M = 4.87$ ),  $t < 1$ , men were slightly better ( $M = 5.44$ ) than women ( $M = 4.08$ ) in the difficult task condition,  $t(19) = 1.96$ ,  $p < .07$ . Because of this interaction we conducted the manipulation check by means of an ANCOVA with gender and task condition as factors, memory performance as a covariate, and subjective performance evaluation as the dependent measure. This analysis revealed a significant covariate effect,  $F(1, 42) = 7.22$ ,  $p = .01$ ; no gender effect,  $F < 1$ ; no gender by task condition interaction,  $F < 1$ ; but a highly significant task condition effect,  $F(1, 42) = 197.44$ ,  $p < .001$ ,  $\eta^2 = .79$ . Participants in the easy task condition rated their performance higher ( $M = 9.28$ ) than those in the difficult one ( $M = 3.81$ ). This means that our manipulation was successful in inducing a failure experience in the difficult task condition (the mean rating was

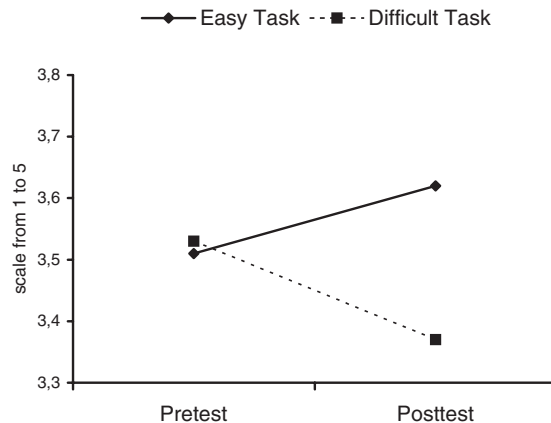


Figure 1. Changes in agency after working on an easy or a difficult recall task (Study 1)

significantly lower than the scale mid point,  $t [20] = 4.30, p < .001$ ) and a success experience in the easy task condition (the mean rating was significantly higher than the scale mid point,  $t [25] = 20.01, p < .001$ ). Actual performance and performance rating were uncorrelated, and agency and communion were also uncorrelated to both actual performance and the performance rating (all  $r_s < .28, ns$ ).

### Hypotheses Testing

*Influence of Success and Failure on Agency* A repeated measures analysis of variance (MANOVA) with gender and task condition as between participants' factors and pretest trait agency versus posttest state agency as the repeated measures factor showed no effect of gender,  $F < 1$ , no gender by task condition interaction,  $F < 1$ , but the predicted task condition by repeated measures interaction,  $F(1, 43) = 9.58, p < .01, \eta^2 = .18$ . As can be seen in Figure 1, agency increased in the easy task condition,  $t(25) = 2.04, p = .05$ , and decreased in the difficult one,  $t(21) = 2.35, p = .03$ .<sup>2</sup>

*Level of Trait Agency, Trait Self-Esteem, Actual Performance, and State Agency* In order to analyze whether the trait level of agency and the trait level of self-esteem influenced the amount of later changes, we ran a linear regression analysis. As the dependent variable we computed the difference of the state minus the trait agency measure. Predictors were gender, trait agency, trait self-esteem and the experimental conditions (dummy coding: 1 "easy task", 0 "difficult task"). We also included actual memory performance as a control variable. Gender ( $\beta = .00$ ) and both trait agency ( $\beta = -.16, ns$ ) and trait self-esteem ( $\beta = .17, ns$ ) as well as memory performance had no influence ( $\beta = -.13, ns$ ). The experimental condition, however, remained highly significant ( $\beta = .40, p < .01$ ).

<sup>2</sup>We computed our data also by means of an ANOVA with trait agency as the covariate and state agency as the dependent variable. The findings are basically the same as those with repeated MANOVA.

*Influence of Success and Failure on Communion* We also computed a repeated MANOVA with gender and task condition on the trait versus state measures of communion. This analysis revealed no effects,  $F_s < 2.26$ , ns.

To summarize, the pretest showed that on average agency does not vary in a 1-week interval. In accord with the hypotheses, Study 1 showed that success experience induced by an easy task led—compared to trait agency—to an increase, and failure induced by a difficult task led to a decrease in state agency. This effect was independent of gender, of actual performance, of trait level of agency, and of trait level of self-esteem. There were no effects on communion.

## STUDY 2

The aim of Study 2 was to replicate the findings and to generalize them to a different task and a different methodology of success versus failure induction. We now used a face recognition task and we induced success versus failure via manipulated performance feedback. Our hypotheses again were that state agency would change in response to success versus failure; and that the effects are the same for women and men. Although face recognition might be somewhat related to communion, because it has to do with interest in people, we again did not expect an effect of success versus failure on communion.

### Method

#### *Participants and Procedure*

Fifty-five students of a German University took part, 30 women and 33 men aged between 18 and 31 years ( $M = 22$  years; all studying arts and humanities). In an initial mass-testing session they answered a questionnaire containing among others the agency and communion scales. One week later they took part in the experiment which was run in individual sessions.

Upon arrival in the laboratory the experimenter greeted the participant and told him/her that the experiment would be run on a computer. All instructions appeared on a screen and all answers were made by pressing the respective keys. First, there were a few practice trials. Then the screen showed the task instruction explaining that the study dealt with social competence and that social competence was a very important key qualification in modern occupational life. The ability to correctly recognize faces was portrayed as a component of social competence and the following task was announced as measuring the participant's ability to recognize faces.

Then the participant read that he/she would be presented with a number of photographs showing female faces, one per screen, and that he/she should memorize these faces. After a short break the faces would be presented again together with new faces not presented before. The participant's task was to press as quickly as possible the 'yes' button, if the face had been presented in the learning phase, or the 'no' button, if the face was a new one.

In the learning phase, all participants watched 20 faces for 5 seconds each. In the recognition phase, participants watched three series of 40 faces each, i.e., altogether 120 faces. The first series contained the 20 stimulus faces of the learning phase together with 20 new faces. The second and third series also contained the 20 stimulus faces and the 20 new faces. Hence 40 faces (20 stimulus faces together with 20 new ones) were presented three times each. The order of faces was random and different for every participant.

After presentation of the last face the next display explained that the participant's performance would now be computed and after a few seconds his/her results would be shown. After a distractor picture (12-second duration) the next screen displayed a graph with the manipulated performance feedback (20-second duration). In the success condition the graph indicated 79 and 71% hits (correctly recognized faces, correctly rejected faces), against 21 and 29% false alarms (incorrectly recognized faces, incorrectly rejected faces). In the failure condition these numbers were reversed. Then the dependent and additional measures were taken. Upon completion of the experiment, the participant was thoroughly debriefed and then dismissed.

### *Design, Materials, and Measures*

The design was 2 (feedback: success or failure) by 2 (gender) by 2 (pretest trait and posttest state measures of agency and communion) with random assignment on the first and repeated measures on the third factor.

### *Photographs*

All pictures were black-and-white photographs of young women aged 19–26 years. In a pilot study their attractiveness had been rated by 23 judges (mean age 32 years) on 7-point scales each (1 = *not attractive* to 7 = *very attractive*). Interrater reliability was very high (Cronbach's  $\alpha = .91$ ) with mean ratings of  $M = 3.68$  (range from 3.00 to 4.96;  $SD = 0.51$ ). All faces showed an emotionally neutral expression, and their hairstyle was always the same.

*Agency and Communion* Agency and communion were measured with the same scale as in Study 1. The only difference pertained to the response format. In order to allow more variation in the participants' answers we now used 7-point scales (1 = *not at all* to 7 = *very much*). The reliabilities were satisfactory (agency, Cronbach's  $\alpha = .70$ ; communion, Cronbach's  $\alpha = .78$ ). Because self-esteem had no effect in Study 1 we did not include it any more.

*Memory Performance and Manipulation Check* Actual performance was the number of correctly identified faces (sum of correctly recognized faces and correctly rejected faces). A performance rating at the end of the study served as the manipulation check ('*How was your performance in the face recognition task?*'). It was answered on a 10-point scale (1 = *very bad* to 10 = *very good*). Additionally, participants were asked to rate how surprised they had been about the performance feedback (10-point rating scale with 1 = *not at all* to 10 = *very much*). This measure was included in order to check the credibility of the manipulated feedback.

## **Results and Discussion**

### *Descriptive Findings*

Pretest agency did not differ between participants who were later assigned to the success or failure condition, both  $t_s < 1$ . Pretest communion differed marginally between conditions,  $t(53) = 1.84$ ,

$p = .07$ , with slightly higher means in the later success condition ( $M = 5.61$ ) than in the later failure condition ( $M = 5.25$ ). Trait and state agency ( $r = .80, p < .001$ ) as well as trait and state communion ( $r = .87, p < .001$ ) were highly correlated. Men and women did not differ in agency,  $t < 1$ , but there was a slight difference in communion (women  $M = 5.62$ , men  $M = 5.23, t(53) = 1.95, p < .06$ ).

Memory performance was quite good with 76% correct responses on average ( $M = 91.47$ ). It did not correlate with the performance rating ( $r = .24, ns$ ). Trait agency was not correlated with performance ( $r = -.05, ns$ ), but trait communion was correlated with performance ( $r = .33, p < .05$ ).

*Memory Performance and Manipulation Check* Men and women did not differ in their actual nor perceived memory performance,  $F_s < 1$ . Memory performance did not also differ between conditions: success condition  $M = 92.81$ ; failure condition  $M = 90.18, t(53) = 1.03, ns$ . As expected, the subjective perceptions of performance differed significantly between conditions,  $F(1, 53) = 86.37, p < .001, \eta^2 = .61$  (success condition  $M = 6.48$ ; comparison to scale mid point,  $t(26) = 3.01, p < .01$ ; failure condition  $M = 2.54$ ; comparison to scale mid point,  $t(27) = 10.27, p < .001$ ) indicating a successful manipulation. Participants' ratings of surprise were close to the scale mid point ( $M = 5.71$ ; comparison to the scale mid point,  $t < 1$ ). There were no differences between men and women,  $F < 1$ , nor between conditions,  $F(1, 51) = 1.26, ns$ .

### *Hypotheses Testing*

*Influence of Success and Failure on Agency* We ran an ANOVA with performance feedback and gender as between-participants factors and trait agency versus state agency as repeated measures factor. There were no effects of gender and of the repeated measures factor,  $F_s < 1$ . The predicted interaction of the repeated measures factor with the performance feedback was significant,  $F(1, 51) = 3.87, p < .05, \eta^2 = .07$ . As shown in Figure 2, agency decreased in the failure condition,  $t(27) = 1.95, p < .06$  and it—nonsignificantly—increased in the success condition (see footnote 2).

*Trait Level of Agency, Actual Performance, and Changes in State Agency* We computed the difference scores of state minus trait agency and regressed it on gender, trait agency, actual

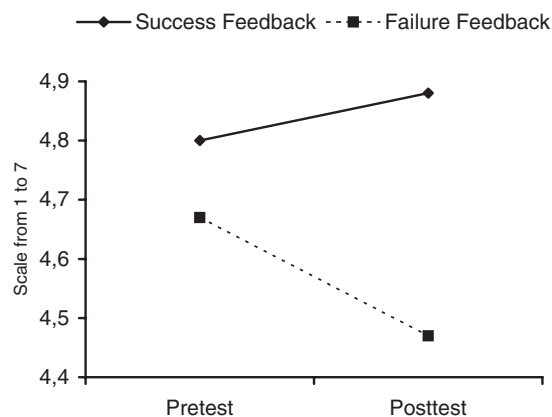


Figure 2. Changes in agency after a manipulated success or failure feedback (Study 2)

performance, and the experimental condition (dummy coded) as predictors. Gender ( $\beta = -.07$ , ns), trait agency ( $\beta = -.07$ , ns), and number of correct responses ( $\beta = -.16$ , ns) had no influence. The experimental condition, however, remained significant ( $\beta = .30$ ,  $p = .03$ ). This means that participants high or low in trait agency reacted in the same way to the experience of success versus failure.

*Influence of Success and Failure on Communion* The repeated MANOVA (factors: success vs. failure manipulation, gender) was also performed with respect to the trait and state communion scores. No significant effects were found, all  $F_s < 2.51$ , ns.

*Influence of Performance on State Communion* Because trait communion had predicted performance in this study we also analyzed whether state communion might change in dependence on performance. We computed the difference scores of state minus trait communion and regressed it on gender, trait communion, actual performance, and the experimental condition (dummy coded) as predictors. Trait communion was marginally predictive ( $\beta = -.26$ ,  $p < .08$ ) indicating more change with lower trait communion; but gender ( $\beta = .06$ , ns), experimental condition ( $\beta = .13$ , ns), and also actual performance ( $\beta = .24$ , ns) had no influence.

Summarizing, Study 2 replicated the findings of the previous study with another task and another methodology of inducing success versus failure. State agency changed in dependence on a success or failure experience; this effect was the same for men and women; the changes were independent of the level of trait agency; and they were independent of actual performance. State communion was unaffected by success or failure. The finding that trait communion predicted face recognition is worth noting for two reasons: first, it shows that this task has in fact to do with communal skills. And second, it shows that although communion predicted this performance there was no reciprocal influence of performance on state communion.

## GENERAL DISCUSSION

### Dynamic Agency

Agency is a relatively stable trait that has to do with goal-attainment, with mastery, and with control. Agency is also dynamic and malleable. It is enhanced in situations where an individual performs occupational roles and attains high status (Abele, 2003; Digman, 1997; Kirchmeyer, 2002; Moskowitz et al., 1994; Paulhus & John, 1998; Smith et al., 1999; Wiggins, 1991). Based on this conceptualization of agency as both stable and dynamic, we extended our previous reciprocal impact hypothesis (Abele, 2003). According to a feedback-loop hypothesis, trait agency enhances success experiences, these have an influence on state agency and—via successive feedback-loops—changes in state agency eventually lead to changes in trait agency. In accord with this reasoning the present studies showed that although the actual performance in the success versus failure condition was identical, the different performance standards induced via easy or difficult tasks (Study 1) or the manipulated performance feedback (Study 2) mattered.<sup>3</sup> Extending previous findings on performance-related changes in specific mastery

<sup>3</sup>In Study 2 the changes in agency were somewhat smaller in the success than failure conditions. This finding may be interpreted as an expression of the general 'bad is stronger than good' phenomenon (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Rozin & Royzman, 2001).

beliefs (cf. Bandura, 2001; Cervone et al., 2004) our results demonstrate that also rather general traits like self-described agency are responsive to situational influences.<sup>4</sup>

Whereas previous findings on self-esteem had revealed that individuals low in self-esteem responded more strongly to failure information than those high in self-esteem (Brown & Dutton, 1995; Dutton & Brown, 1997; Tafarodi & Vu, 1997), our analyses showed that the level of self-esteem did not matter (Study 1) and that the level of trait agency did not matter either (both studies).

### **Agency and Gender**

Both in the pretest and in the two experiments there were no gender differences in agency suggesting that—at least for a highly educated sample like university students—agency is ceasing to be a ‘masculine’ characteristic (see also Twenge, 1997). Most important and in line with our reasoning we did not find any interactions of gender and experimental conditions with respect to changes in agency. Men and women reacted in the same way. This suggests that if men and women act in similar achievement situations and experience similar successes or failures, then their agentic traits are similar, as well. Gender differences in agency are not inherent characteristics of men and women but—if they exist—reflect different experiences and roles women and men enact in a society. Our finding is in line with Social Role theory (Eagly, 1987; Wood & Eagly, 2002) according to which gender stereotypes as well as gender differences in psychological traits reflect the gender-specific division of labor in a society. Whereas previous work has shown that the ascription of traits to men and women is dependent on their role enactment (cf. Eagly & Steffen, 1984) the present study shows that also the self-description follows this pattern.

### **Communion**

The other basic dimension is communion which means concern with affiliation and intimacy, nurturance and attachment, caring and involvement with other people (Abele, 2003; Bartz & Lydon, 2004; Digman, 1997; Helgeson & Fritz, 1999; Pöhlmann, 2001). Communion was not expected to vary as a function of success versus failure experiences. Of course, it is difficult to test a null hypothesis and we also did not do it in a strict sense. Nevertheless, in accord with our reasoning, there were no influences of success or failure experiences on communion. The present findings suggest that success versus failure in a recall task or even in a face recognition task (which has to do with communion, as has been shown in Study 2) does not result in changes in state communion.

At least two questions can be raised: first, perhaps communion is more stable than agency. Empirical evidence for antecedents of changes in communion is generally scarce (Abele, 2003; Hannover, 1997; Moskowitz et al., 1994; Suh, Moskowitz, Fournier, & Zuroff, 2004; regarding stereotypes see Diekmann & Eagly, 2000) and communion has changed less than agency during the last 20 years (Twenge, 1997). Second, it may be that the malleability of communion is dependent on other cues and situations than the ones studied until now. Communion possibly varies with social experiences like getting friend with someone or being able to empathically experience another individual’s emotional state. This has to be studied in further research.

<sup>4</sup>The present studies have shown that agency is malleable to success versus failure experiences. However, the success and failure experiences induced via our memorizing task are only examples of ‘mastery’ experiences that may influence agency. Even if we tried to establish the tasks’ relevance for our participants by outlining the importance of memory skills (Study 1) and social competence (Study 2) for a successful career further studies might use more complex tasks that are representative for occupational life.

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