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Article

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Abstract

How are people who generally see others positively evaluated themselves? We propose that the answer to this question crucially hinges on the content domain: We hypothesize that Agency follows a "zero-sum principle" and therefore people who see others as *high* in Agency are perceived as *low* in Agency themselves. In contrast, we hypothesize that Communion follows a "non-zero-sum principle" and therefore people who see others as *high* in Communion are perceived as *high* in Communion themselves. We tested these hypotheses in a round-robin and a half-block study. Perceiving others as agentic was indeed linked to being perceived as low in Agency. To the contrary, perceiving others as communal was linked to being perceived as high in Communion, but only when people directly interacted with each other. These results help to clarify the nature of Agency and Communion and offer explanations for divergent findings in the literature.

Keywords

social perception, Agency, Communion, reciprocity, Social Relations Model

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> The craft of a master is not imposing dominance, but winning submission.
>
> —Ann Somerville, Remastering Jerna

> A good deed is never lost; he who sows courtesy reaps friendship, and he who plants kindness gathers love.
>
> —Saint Basil

When regarded in comparison, these two quotes indicate that human interaction might be guided by fundamentally different principles depending on the content domain. The first quote suggests that, in the domain of dominance and power, one person's benefit may elicit costs for other people. In contrast, the second quote suggests that, in the domain of prosociality and morality, one person's benefit may elicit benefits for other people, too. Could it possibly be that the distribution of relative costs and benefits differ systematically depending on the content domain? If this is the case, how might such a pattern be represented in social perception? These are the overarching questions we addressed in the current research.

Ample evidence from different psychological subdisciplines has documented that social judgment largely falls into two broad content domains, which are often labeled "Agency" and "Communion" (Abele & Wojciszke, 2014; Bakan, 1966; Wiggins, 1991). These are also the terms that we use in the present paper. Other sub-disciplines use different terms to describe the two domains. For example, when referring to Agency and Communion, the stereotype literature distinguishes between "competence" and "interpersonal warmth" (Fiske, Cuddy, & Glick, 2007), the sex roles literature speaks of "masculinity" and "femininity" (Bem, 1974), culture is often studied in terms of "individualism" and "collectivism" (Triandis, 1995), and the personality literature talks about two Big Five meta-traits, called "beta" and "alpha" (Digman, 1997). It is intriguing that within all of these different psychological sub-disciplines, researchers found two dimensions to reside at the broadest level of the hierarchy, and that the content of these dimensions is highly similar across sub-disciplines (Abele & Wojciszke, 2007; Judd, James-Hawkins, Yzerbyt, & Kashima, 2005; Wiggins, 1979). Adopting a motivational perspective, Hogan (1982)

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argued that the term *Agency* refers to a person's drive and capacity for "getting ahead" in the social world, that is, to directly promote his or her own interests, sometimes at the expense of others. In contrast, the term Communion refers to the drive and capacity for "getting along" with others, that is, to integrate oneself into a larger community of individuals, and to co-operate with them (see also Abele & Wojciszke, 2007; Frimer, Walker, Dunlop, Lee, & Riches, 2011; Gebauer, Leary, & Neberich, 2012). Considering the two opening quotes, it becomes clear that the first quote refers to Agency whereas the second quote refers to Communion.

Even though the distinction between Agency and Communion has a long tradition, the core functional differences between Agency and Communion are not yet fully understood. Aiming to contribute to a better understanding, we propose that one fundamental difference between Agency and Communion is the way in which the costs and benefits of one person are related to those of other people. Social situations can be classified into zero-sum situations in which one person's gain is other people's loss and into non-zero-sum situations in which both parties can win. A large body of research indicates that human behavior greatly differs depending on whether the situation is framed as a zero-sum situation or as a non-zero-sum situation (for a review and meta-analysis, see Balliet, Parks, & Joireman, 2009).

In the current research, we adopt the zero-sum and non-zero-sum principles from behavioral economics and use them in a more abstract way, not to explain human behavior in different economic situations, but to highlight the core features of the very nature of the Agency and Communion constructs. We propose that one central feature of Agency is that it represents a limited resource. This point may best be understood if one considers that Agency largely represents the *dominance* dimension of social judgment (Leary, 1957; Wiggins, 1991). By definition, dominance cannot be attained by all members of a group or dyad. Instead, the more dominant a certain person is, the less dominant the person's interaction partners have to be. To "get ahead" (Hogan, 1982), individuals often have to dominate, or outperform, others (Baumeister, 2005). Accordingly, the situation for Agency entails a zero-sum principle in the sense that one person's gain tends to be other people's loss (cf. Blau, 1964; Clark, 1990; Frank, 1985).[1]

The situation is fundamentally different for Communion: People tend to benefit when their interaction partners display warm, prosocial, and moral behavior (Abele & Wojciszke, 2007; Peeters, 1992). Moreover, communal behavior is often reciprocated by interaction partners so that all involved people have mutual benefits (Gintis, Bowles, Boyd, & Fehr, 2003; Trivers, 1971). In other words, whereas dominance tends to be distributed between individuals in a zero-sum fashion, no such necessity exists for the building of coalitions. To the contrary, one person's friendliness may be interpreted as an invitation to collaborate (i.e., to be friendly as well); an invitation that is usually accepted (Horowitz et al., 2006). Thus, whereas Agency follows a zero-sum principle, Communion follows a non-zero-sum principle: It will be easier for a person to attain dominance, if others are *less* dominant, but it will be easier for a person to establish an interpersonally warm interaction, if others are *also* interested in interpersonal warmth. In summary, our basic argument is that relative gains and losses for interaction partners are markedly different across the two basic content dimensions of social judgment. Zero-sum is the guiding principle in the Agency domain, whereas non-zero-sum is the guiding principle in the Communion domain.

Previous research on so-called "interpersonal complementarity" is in line with that theorizing. Here, studies have shown that dominant (i.e., agentic) behavior tends to invite submissive behavior from an interaction partner and vice versa (Carson, 1969; Horowitz et al., 2006; Kiesler, 1983; Sadler, Ethier, & Woody, 2011). These findings fit the idea that Agency is a limited resource that tends to be distributed among interaction partners in a zero-sum fashion. For one person to dominate, others must surrender. These and other studies also found that (non-)communal behavior invites (non-)communal behavior in return. This fits the idea that the communal behavior of two people tend to positively reinforce each other. If one person affiliates, interaction partners are likely to affiliate as well, and all might benefit in the end.

Similar complementarity effects have been demonstrated for associations between self-perceptions and perceptions of others. Some studies indicate that persons who consider themselves as agentic have a tendency to view other people as low in Agency whereas persons who consider themselves as communal tend to view others as high in Communion as well (Tiedens & Jimenez, 2003; Tiedens, Unzueta, & Young, 2007). These results are again convergent with the idea that Agency is a resource that is distributed in a zero-sum manner and can only be attained by one interaction partner at the cost of other people's Agency whereas Communion can be high for all interaction partners.

The findings reported in the previous two paragraphs indicate that zero-sum and non-zero-sum principles can be used to understand social behavior in one-on-one interactions and also to understand links between self-perceptions and perceptions of others. In the current research, we consider a third and complementary application of the zero-sum and non-zero-sum principles: Specifically, we investigate whether those principles can also be applied to explain links between perception *of* others and perceptions *by* others (i.e., social reputation).

Following Funder (1999) and Vazire (2010), our approach takes social perceptions at face value. That is, we investigate generalized perceptions of others, generalized perceptions by others, and self-perceptions without making any a priori assumptions about the extent to which these perceptions are grounded in reality. According to Kenny's (1994) Social Relations Model, the systematic variance in social judgments can be decomposed into a portion that is due to "perceiver

effects" (a person's average judgment of other people), "target effects" (other people's average judgments of a person), and "relationship effects" (unique evaluations of particular others that can neither be attributed to perceiver nor target effects). What is of particular interest in the present context are associations between perceiver effects and target effects, so-called "generalized reciprocity" correlations (Kenny, 1994). Generalized reciprocity correlations quantify the extent to which *perceiving* others as high or low on a given dimension is associated with *being perceived* by others as high or low on the same dimension. If our reasoning is correct, the directionality of generalized reciprocity should be different for Agency and Communion judgments: If Agency judgments really follow a zero-sum principle, the result should be a *negative* association between perceiver effects and target effects. That is, perceiving others as high in Agency should be associated with being perceived as low in Agency, and perceiving others as low in Agency should be associated with being perceived as high in Agency. In contrast, if Communion judgments really follow a non-zero-sum principle, the result should be a *positive* association between perceiver effects and target effects. That is, perceiving others as high in Communion should be associated with being perceived as high in Communion, and perceiving others as low in Communion should be associated with being perceived as low in Communion.

Previous evidence from the social perception literature partly corroborates our reasoning: Kenny (1994) investigated generalized reciprocity for each of the Big Five factors. Extraversion and Intellect are the Big Five traits that load on the broader Agency factor, whereas Agreeableness overlaps most closely with the Communion factor (McCrae & Costa, 1989; Paulhus & John, 1998). Hence, if our reasoning is correct, negative links between perceiver effects and target effects should be present for Extraversion and Intellect, whereas positive links should be present for Agreeableness. Indeed, Kenny (1994) repeatedly detected positive reciprocity correlations for Agreeableness. Moreover, he detected negative reciprocity correlations for Extraversion and Intellect in some, but not all, studies. This partly inconsistent pattern might be due to the fact that the Big Five traits are not ideal operationalizations of Agency and Communion, as in some cases, Big Five traits have both agentic and communal content (Depue & Collins, 1999; Depue & Morrone-Strupinsky, 2005). Furthermore, the partly inconsistent pattern might be due to a confounding between perceiver effects and self-perceptions. As described above, self-perceptions often correlate with generalized perceptions of others (Cho & Knowles, 2013; Cronbach, 1955; Gramzow, Gaertner, & Sedikides, 2001; Kenny, 1994). However, the direction of these associations is complex and depends on a number of moderating factors, such as the ingroup versus outgroup status of the target person, the attributes being judged, the type of relationship between perceiver and target, the extent to which the outgroup person is liked, and personality characteristics of the perceiver (Gebauer et al., 2014; Gebauer et al., 2015; Human & Biesanz, 2011; Locke, Craig, Baik, & Gohil, 2012; Robbins & Krueger, 2005; Tiedens & Jimenez, 2003; Tiedens et al., 2007). Furthermore, self-reports also tend to be linked to target effects, because both observers and targets usually make judgments that are at least partly accurate (Borkenau, Mauer, Riemann, Spinath, & Angleitner, 2004; Funder, 1999; for example, Tim correctly sees himself as "rather intelligent," and others correctly agree with that judgment). Therefore, although associations of self-perceptions with perceiver and target effects are an interesting research topic in their own right, they need to be controlled in the present context. This is because the overlap of self-perceptions with perceiver and target effects may exacerbate or suppress associations between perceiver effects and target effects that the present study focuses on. In sum, the goal of the current research was to further illuminate the nature of Agency and Communion, by investigating an important functional difference between the two dimensions. We assumed that zero-sum is the guiding principle for judgments of Agency whereas non-zero-sum is the guiding principle for judgments of Communion. As a result of that functional difference, we expected divergent reciprocity correlations for interpersonal judgments to emerge in the Agency and Communion domains. Specifically, we expected negative reciprocity correlations for Agency and positive reciprocity correlations for Communion. To test these assumptions, we systematically investigated generalized reciprocity correlations in both domains across two studies. In both studies, we aimed for sample sizes of $N > 200$, which would provide sufficient power (.80) to detect effect sizes of $r > .20$—approximately the average effect size in personality psychology (Richard, Bond, & Stokes-Zoota, 2003) at an alpha level of .05.

Study 1

In Study 1, we investigated generalized reciprocity for agentic and communal judgments using a round-robin design. Students who were working together in small groups judged themselves and their group members on agentic and communal traits and behaviors. This design enabled us to investigate generalized reciprocity in naturally occurring groups in which participants interacted on a regular basis. We tested whether participants who saw their fellow students as relatively agentic were viewed as *less* agentic by those fellow students. In other words, we tested for the agentic zero-sum principle. In technical terms, we hypothesized that once self-reports are controlled, perceiver effects for Agency judgments are negatively linked to target effects. We also tested whether participants who saw their fellow students as relatively communal were viewed as *more* communal by those peers. In other words, we tested for the communal non-zero-sum principle.

Method

Participants and procedure. Participants were first-year undergraduate psychology students from a university in Northeastern Germany. As part of a class assignment, students were randomly assigned to work groups of up to 10 participants per group ($M = 6.41$, $SD = 1.84$). Seven weeks into the semester, participants rated themselves and their fellow group members in terms of personality and behavior (see below). Another 7 weeks later, they completed the same ratings again (reparticipation rate = 88%). To maximize reliability, we aggregated all ratings across the two time points. All assessments took place in a large lecture theater, and participants were rewarded with course credit. Between the years 2011 and 2014, we repeated these assessments for all three cohorts of first-year undergraduate students. Data from the three cohorts were combined, amounting to $N = 295$ participants who participated in 46 work groups.

Measures

Assessments took place as part of a larger project. We will only describe the measures that are relevant for the current research question.

Agency and Communion trait judgments. Participants completed an abbreviated version of the Agency-Communion Scale (Gebauer, Paulhus, & Neberich, 2013) to judge their group members and themselves on Agency and Communion. Agency was assessed with five items ("ambitious," "bossy," "clever," "dominant," and "leader"; self-report: α = .81; perceiver effect: α = .82; target effect: α = .89). Communion was also assessed with five items ("warm," "compassionate," "honest," "caring," and "understanding"; self-report: α = .86; perceiver effect: α = .94; target effect: α = .94). For each item, response options ranged from 1 (*not at all*) to 7 (*very much*).

Agentic and communal behavior. Participants judged their own and their group members' agentic and communal behavior using five items for each domain. The items were taken from a behavioral item list developed by Moskowitz (1994). The Agency items were "Person X . . ." ". . . set goals for our group," ". . . expressed his or her opinion," ". . . spoke with a clear firm voice," ". . . assigned tasks to group members," and ". . . made suggestions for improvement" (self-report: α = .82; perceiver effect: α = .79; target effect: α = .96). The Communion items were "Person X . . ." ". . . listens attentively to the others," ". . . compliments or praises group members," ". . . smiles and laughs with others," ". . . makes concessions to avoid unpleasantness," and ". . . expressed reassurance" (self-report: α = .61; perceiver effect: α = .83; target effect: α = .90). For each item, response options ranged from 0 (*does not apply at all*) to 7 (*applies very well*).

We computed all perceiver effects and target effects using the *R* (R Development Core Team, 2008) package *TripleR* (Schönbrodt, Back, & Schmukle, 2012).

Results and Discussion

Trait and behavior judgments were moderately to highly correlated for perceiver effects ($r_{Agency} = .41$, $p < .001$; $r_{Communion} = .60$, $p < .001$), self-reports ($r_{Agency} = .56$, $p < .001$; $r_{Communion} = .50$, $p < .001$), and target effects ($r_{Agency} = .85$, $p < .001$; $r_{Communion} = .83$, $p < .001$). Therefore, we decided to compute composite scores by averaging across trait and behavior ratings for Agency and Communion. Because these composite scores are broader and more reliable than the individual trait and behavior ratings, we will only interpret results that are based on these scores. Table 1 shows zero-order correlations (ignoring the nested data-structure) and multi-level relations (random effects, which account for the nested data-structure) between all variables in the study. Because participants were nested in work groups, we centered all participant-level variables around their (work-)group's mean (i.e., group-mean centering; Enders & Tofighi, 2007). Table 1 shows that self-reports were positively associated with target effects for both content domains. That is, participants who judged themselves as being more agentic or communal were also judged that way by their peers (i.e., the well-established self–other agreement effect). In addition, self-reports and perceiver effects were positively associated for both content domains. That is, participants who judged themselves as being more agentic or communal also judged their peers that way.

Table 2 displays the associations that emerged when target effects for Agency and Communion were simultaneously regressed on perceiver effects and self-reports in the respective domains. Most important, and in support of our hypotheses, Table 2 shows that when we controlled for self-reports, the association between perceiver and target effects was negative for Agency judgments, but positive for Communion judgments. That is, persons who saw their group members as more agentic were seen as less agentic by them (i.e., a demonstration of the agentic zero-sum principle). In sharp contrast, persons who saw their group members as more communal were also seen as more communal by those others in return (i.e., a demonstration of the communal non-zero-sum principle).

Study 2

In Study 2, we used a different design to investigate reciprocity correlations for Agency and Communion judgments. We videotaped participants in a standardized laboratory context where they interacted with the experimenter (cf. Leising, Locke, Kurzius & Zimmermann, in press). To assess perceiver effects, target persons judged four other people ("standard targets") whom they saw on a videotape engaging in the same tasks they had engaged in. This way, we were able to guarantee that participants' perceiver effects referred to exactly the same instances of the same target persons' behavior. Any individual differences therefore had to represent perceptual processes alone. In addition, participants saw a videotape of themselves and judged their own behavior. To

Table 1. Study 1: Zero-Order Correlations and Multi-Level Associations Among Variables.

	Agy.s	Agy.t	Com.p	Com.s	Com.t
Agy.p					
r_{trait}	.38**	−.01	.43**	.27**	.03
$r_{behavior}$	.13*	−.01	.57**	.34**	.18**
$r_{composite}$	**.20****	**−.04**	**.56****	**.37****	**.13***
$MLL_{composite}$	**.20 [.06, .35]**	**−.03 [−.14, .09]**	**.52 [.40, .63]**	**.35 [.22, .28]**	**.10 [−.02, .22]**
Agy.s					
r_{trait}		.45**	.14*	.03**	−.25**
$r_{behavior}$		.64**	.26**	.21**	.14*
$r_{composite}$		**.59****	**.20****	**.12***	**−.08**
$MLL_{composite}$		**.65 [.53, .76]**	**.25 [.11, .38]**	**.13 [−.01, .26]**	**−.09 [−.21, .02]**
Agy.t					
r_{trait}			−.04	−.09	−.17**
$r_{behavior}$			.05	−.05	.31**
$r_{composite}$			**.03**	**−.09**	**.08**
$MLL_{composite}$			**.04 [−.10, .17]**	**−.11 [−.26, .03]**	**.04 [−.11, .19]**
Com.p					
r_{trait}				.49**	.27**
$r_{behavior}$				.39**	.23**
$r_{composite}$				**.48****	**.28****
$MLL_{composite}$				**.50 [.36, .65]**	**.25 [.15, .36]**
Com.s					
r_{trait}					.30**
$r_{behavior}$					.31**
$r_{composite}$					**.35****
$MLL_{composite}$					**.32 [.20, .45]**

Note. 95% confidence intervals for multi-level results are shown in brackets. Results for composite scores are printed in boldface. Agy = Agency; .s = self-report; .t = target effect; Com = Communion; .p = perceiver effect; MLL = multi-level regression coefficients.
*$p < .05$. **$p < .01$.

Table 2. Study 1: Target Effects Simultaneously Predicted by Perceiver Effects and Self-Reports in the Respective Domains.

Predictor	Agy.t	Com.t
.p		
Trait	−.25 [−.37, −.13]	.19 [.02, .36]
Behavior	−.08 [−.19, .04]	.13 [−.001, .26]
Composite	**−.21 [−.34, −.08]**	**.18 [.03, .33]**
.s		
Trait	.56 [.44, .69]	.21 [.04, .39]
Behavior	.66 [.56, .75]	.29 [.12, .46]
Composite	**.70 [.59, .80]**	**.29 [.10, .48]**

Note. Multi-Level regression coefficients are displayed (95% confidence intervals for multi-level results are shown in brackets). Results for composite scores are printed in boldface. Agy = Agency; .t = target effect; Com = Communion; .p = perceiver effect; .s = self-report.
*$p < .05$. **$p < .01$.

compute target effects, the videotapes of all target persons were judged by the same four observers ("standard perceivers"). We again hypothesized that—when controlling for self-ratings—a negative reciprocity correlation will exist for Agency judgments and a positive reciprocity correlation will exist for Communion judgments.

We also highlighted the role of concrete *behavior* in Study 2. We did this by showing the videotapes of the participants to a different group of observers who rated the occurrence of a broad variety of agentic (e.g., performance at specific tasks) and communal (e.g., frequency of smiling) behavioral cues. In accordance with the zero-sum principle, we assumed that persons who show more agentic behavior, such as displays of dominance or competence, would judge other people (who on average show less such behavior) as lower in Agency. Hence, agentic behavior should be negatively linked to the perceiver effect for Agency. Moreover, given that observers tend to show some extent of accuracy in their ratings (e.g., Borkenau et al., 2004; Funder, 1999; Leising, Gallrein, & Dufner, 2014), agentic behavior should be positively linked to target effects for Agency. This means that people who display agentic behavior should see others as low in Agency. At the same time, those people displaying agentic behavior should be seen as high in Agency. Accordingly, for judgments of Agency, we hypothesized that behaviors that are positively linked to perceiver effects should be negatively linked to target effects. In contrast, for judgments of Communion, we predicted that behaviors that are positively linked to perceiver effects should also be positively linked to target effects.

Method

Sample. Participants were recruited at a university in Eastern Germany and from the local community. The target sample comprised 201 individuals (49.75% women, M_{age} = 24.91, SD_{age} = 5.05), and each participant received a monetary reward of 30 Euro.

Procedure. Upon arrival at the laboratory, participants were first asked to fill out a consent form. Then they completed a set of personality questionnaires and cognitive tests which were irrelevant for the current research. Next, the experimenter presented them with a diverse set of 17 tasks, including intellectual tasks, creativity tasks, short role-plays, and personal questions, which always occurred in the same order (see online supplement material). The purpose of these tasks was to make the participants' behavioral inclinations across a broad range of content domains observable. Participants' behavior while engaging with the tasks was videotaped.

Afterward, participants were asked to provide judgments of five persons shown on separate videotapes. Four of the videotapes showed another person ("standard targets") engaging in the same 17 tasks that had also been completed by the participants. The standard targets (two women and two men of about 25 years) were the same for all participants. They were selected from a larger group of 20 pilot participants and varied considerably in how they approached the tasks. The fifth video showed the recording of the participant him- or herself. Hence, in the latter case, participants' ratings represented self-reports. For any given participant, the five videotapes were presented in random order. Participants rated the behavior of all four standard targets and themselves using the same adjective list (see below). We computed perceiver effects by averaging participants' judgments across the four standard targets. Note that in this study no direct interaction took place between participants, standard perceivers, and standard targets.

The videotapes of all participants were also judged by a group of four "standard perceivers" (research assistants), again using the same adjective list. Two standard perceivers were male, two were female, and they all were of about equal age (about 25). All participants were judged by the same four standard perceivers. We computed a participant's target effect by averaging across the judgments of that participant by the four standard perceivers. In addition, a separate group of 16 students independently rated all videotapes for the occurrence of various behavioral cues (see below). These ratings were completed as part of a course requirement.

Measures

As in Study 1, we will only describe the measures that are relevant for the current research question.

Agency and Communion judgments. We administered 2 × 4 items of the Interpersonal Adjective List (IAL; Jacobs & Scholl, 2005) and participants completed those items on a rating scale ranging from 1 = *does not apply at all* to 5 = *fully applies*. To assess Agency judgments, we used two items from the high Agency octant of the Interpersonal Circumplex (i.e., "assertive," "self-assured") and two (reverse-scored) items of the low Agency octant (i.e., "shy," "quiet"). Similarly, we used two items from the high Communion octant of the Circumplex (i.e., "softhearted," "empathic") and two (reverse-scored) items of the low Communion octant (i.e., "hostile," "cruel") to assess Communion judgments. For Agency judgments, Cronbach's alpha across the four items was α = .80 for self-report, α = .76, for perceiver effects, and α = .91, for target effects. For Communion judgments, Cronbach's alpha across the four items was α = .47 for self-report, α = .69 for perceiver effects, and α = .91 for target effects. Agency was assessed with five items ("ambitious," "bossy," "clever," "dominant," and "leader"; self-report: α = .81; perceiver effect: α = .82; target effect: α = .89). Communion was also assessed with five items ("warm," "compassionate," "honest," "caring," and "understanding"; self-report: α = .86; perceiver effect: α = .94; target effect: α = .94). The relatively low alpha for the self-report Communion scale was probably due to variance restriction, as Communion self-ratings were very high on average (M = 4.14, SD = .45).

After having computed these internal consistencies for the scales, we also computed internal consistencies for perceiver effects (i.e., across participants' ratings of the four standard targets) and target effects (i.e., across the four standard perceivers' judgments of the participants) themselves. Internal consistencies for perceiver effects (i.e., across participants' ratings of the four standard targets) were α = .45 for Agency judgments and α = .52 for Communion judgments. Internal consistencies for target effects (i.e., across the four standard perceivers' judgments of the participants) were α = .75 for Agency judgments and α = .73 for Communion judgments. This means that for both content dimensions, "consensus" was stronger than "assimilation" (Kenny, 1994).

Behavioral cues. Participants' behavior during the laboratory session was assessed in regard to 37 different behavioral cues, such as, for example, the clarity of expression, the frequency of eye contact with the experimenter, or the creativeness of participants' responses.[2] The judges were 16 psychology students (M age = 26.47, SD = .38; 63% female). Each cue was rated by a group consisting of three to five judges. The total number of cues was divided by four and we randomly assigned an approximately equal number of cues to each of the four groups to rate. Table 3 includes a full list of cues as well as inter-rater agreement for the cue judgments.

Results and Discussion

As can be seen in Table 4, self-reports correlated positively with target effects for both content domains. That is,

Table 3. Study 2: Partial Correlations Between Perceiver and Target Effects and Behavioral Cues.

Cue	Cue reliability (α)	Agy.p	Agy.t	Com.p	Com.t
Clear expression	.71	−.24**	.27**	−.02	.20**
Sophisticated verbal expression	.74	−.20**	.14	−.04	.08
Proper intonation while reading	.88	−.19**	.31**	.01	.25**
Intellectual speech content	.83	−.18*	.09	.01	.20**
Friendly behavior	.69	−.16*	.15*	.01	.52**
Intellectual content of favorite movie/book	.84	−.14*	.04	−.03	.02
Looks at experimenter	.54	−.14	.33**	.16*	.13
Fast speech	.70	−.13	.31**	.10	−.01
Fluent speech	.61	−.13	.21**	.06	.05
Frequency of smiling	.80	−.11	.18	.05	.29**
Correct solutions to knowledge questions	.97	−.11	.05	−.06	.10
Loud voice	.76	−.10	.38**	.12	−.09
Creative answers	.73	−.10	.18*	−.08	.06
Usage of foreign words	.62	−.09	.13	−.12	−.12
Targeted responses	.70	−.08	−.01	.11	.24**
Boasting	.61	−.07	.28**	.05	−.11
Gestures	.78	−.07	.23**	−.02	.07
Upright posture	.62	−.07	.10	−.01	.24**
Fashionable clothes	.67	−.03	.17*	.01	.28**
Attractive look	.87	−.03	.25**	−.02	.22**
Well-proportioned body	.85	−.02	.17*	−.09	.13
Cultivated appearance	.83	−.01	.13	.04	.17*
Deep voice	.79	.00	.08	.03	−.20**
Talks bad about others	.74	.00	.07	−.07	−.20**
Chubbiness	.90	.03	.00	.20**	−.12
Restlessness	.76	.04	−.05	.14	.03
Number of justifications	.75	.05	.07	.08	−.20**
Indifferent expression	.44	.06	−.08	.04	−.39**
Delayed responses	.71	.09	−.28**	−.02	.03
Colorful clothes	.94	.13	.01	−.09	.13
Difficulties at creativity tasks	.80	.14*	−.15*	.09	−.26**
Fancy clothes	.71	.14*	.04	−.12	−.06
Tenseness	.74	.18**	−.42**	−.03	−.04
Dialect	.91	.19**	−.07	.04	−.33**
Delay of response to knowledge questions	.79	.19**	−.17*	.03	−.10
Reading difficulties	.79	.22**	−.21**	.03	−.25**
Grammatical errors	.40	.25**	−.13	.02	−.26**

Note. In each case, self-reports in the respective domains are controlled. All cues were rated on a scale ranging from 1 = *does not apply at all* to 6 = *fully applies*. The only exception was "Justifications when answer is unknown." Here the number of justifications was counted. Agy = Agency; .p = perceiver effect; .t = target effect; Com = Communion.
*$p < .05$. **$p < .01$.

Table 4. Study 2: Correlations Among Variables ($N = 201$).

	Agy.s	Agy.t	Com.p	Com.s	Com.t
Agy.p	−.24**	−.36**	.00	−.11	−.06
Agy.s		.45**	.05	.04	−.05
Agy.t			.14	−.04	−.11
Com.p				.15*	.01
Com.s					.37**

Note. Agy = Agency; .s = self-report; .t = target effect; Com = Communion; .p = perceiver effect.
*$p < .05$. **$p < .01$.

participants who judged themselves as being more agentic or communal were also judged that way by observers. However, self-reports correlated positively with perceiver effects for judgments of Communion, but negatively with perceiver effects for judgments of Agency. Most important to our research question, we found the expected negative correlation between perceiver and target effects for Agency, but no significant correlation for Communion. Controlling for self-ratings did not affect these results much: The reciprocity correlation remained negative and significant for Agency judgments ($r = -.29$, $p < .001$; 95% confidence interval [CI] = [−.42, −.15]) and non-significant for Communion judgments ($r = -.06$, $p = .43$; 95% CI = [−.20, .09]).

Next, we investigated the associations between perceiver and target effects for both content domains and the behavioral cues (again controlling for self-reports). As can be seen in Table 3, for Agency, cues that were positively linked to perceiver effects tended to be negatively linked to target effects and cues that were negatively linked to perceiver effects tended to be positively linked to target effects. Most of these cues were behavioral indicators of dominance, self-assuredness, or competence (i.e., Agency), such as, "clear verbal expression," "proper intonation while reading," or "sophisticated verbal expression." For example, participants who were judged as expressing themselves more clearly (behavioral cue) were also judged as being *more* agentic by the four standard perceivers (target effect), but judged others as being *less* agentic (perceiver effect).

To quantify the similarity between the correlations with behavioral cues for perceiver and target effects, we computed a vector correlation (cf. Borkenau & Liebler, 1993). This correlation was negative and very substantial in size for Agency ($r = -.77$, $p < .01$). The vector correlation indicates that if behaviors were positively linked to perceiver effects, they tended to be negatively linked to target effects. We also computed such a vector correlation for Communion judgments, which turned out to be insignificant ($r = -.12$, $p = .47$). Hence, for this content domain, we found no evidence that behaviors linked to perceiver effects were also linked to target effects.

It should be noted, however, that numerous behavioral cues indeed predicted judgments of Communion. For example, participants who smiled more frequently, and participants who talked less negatively about others, received higher Communion ratings from the four standard perceivers. What was almost completely missing, however, were systematic links between behavioral cues and perceiver effects for Communion. That is,

almost no behavioral cue was associated with participants' tendencies to judge others as being more or less communal.

In sum, the findings of Study 2 again indicated that in the Agency domain, perceiver effects are negatively related to target effects. This negative reciprocity correlation could largely be explained by the fact that perceiver and target effects tended to be associated with behavioral cues in opposing ways. Most cues that were linked both to perceiver and target effects were positive or negative indicators of Agency (such as, for example, clarity of speech, or creativity of performance); thus, it seems that agentic behaviors are linked to seeing others as low in Agency (i.e., a low perceiver effect) but to being seen as high in Agency at the same time (i.e., a high target effect). That is, persons who performed well tended to judge others negatively, but were judged positively themselves. Contrary to our expectation, the reciprocity correlation for communal judgments was not positive, but non-significant. This finding can most likely be explained by the specific design of Study 2 where no direct interaction took place between target persons and observers. We will further elaborate on the plausibility of this interpretation in the "General Discussion" section.

General Discussion

Agency and Communion are the two most fundamental dimensions of social judgment. They play key roles in most psychological sub-disciplines and figure prominently in many other social and humanity sciences, including sociology (Gecas, 1982) and anthropology (Gurven, von Rueden, Massenkoff, Kaplan, & Lero Vie, 2013). The importance of Agency and Communion calls for a deeper understanding of those two dimensions. In the current research, we aimed for a better understanding of the functional differences between Agency and Communion judgments. We proposed that judgments of Agency tend to follow a zero-sum principle, whereas judgments of Communion tend to follow a non-zero-sum principle. To test this proposal, we analyzed generalized reciprocity correlations in two studies, which complemented each other methodologically.

The findings of both studies supported the notion of an agentic zero-sum principle. In each study, people who perceived others as more agentic were seen as less agentic in return. Or, conversely, people who saw others as low in Agency were seen as high in Agency in return. The fact that this pattern emerged in both studies indicates that it does not matter whether the people who provide the judgments directly interact with one another (as in Study 1) or judge people whom they see on videotape (as in Study 2). The findings of Study 2 further indicate that individual differences in actual behavior are crucial for the operation of the agentic zero-sum principle: The same overt behaviors that were positively linked to perceiver effects tended to be negatively linked to target effects, and the association between these two types of links was very strong. Thus, the relative distribution of gains and losses in Agency perception seems to depend on how people actually behave: Certain behaviors are associated with perceiving others as less agentic but with being perceived by others as more agentic at the same time.

For communal judgments, the findings were more nuanced. In Study 1, where participants directly interacted with each other on a regular basis, the expected positive reciprocity correlation for communal judgments emerged. In Study 2, however, where no direct interaction took place between participants, the reciprocity correlation was essentially zero. This null result invites theorizing about the potential mechanisms underlying the positive reciprocity correlation in Study 1. It seems plausible that a high perceiver effect leads to the initiation of communal behavior, because the target person expects that such communal behavior will be reciprocated. The target's own communal behavior should then lead to a high target effect. Previous research on the "self-fulfilling prophecy" effect is in line with this reasoning. Here, studies have shown that people who are led to believe that they are liked by group members (i.e., a positive perceiver effect was experimentally induced) exhibit displays of warmth and friendliness, which then leads to actual acceptance by others (i.e., a positive target effect emerges; Stinson, Cameron, Wood, Gaucher, & Holmes, 2009; see also Curtis & Miller, 1986; Downey, Freitas, Michaelis, & Khouri, 1998; Jones & Panitch, 1971; Rabiner & Coie, 1989). It is important to note that such a mechanism can only occur if targets and perceivers directly interact with one another because otherwise communal behavior cannot be reciprocated. Hence, it appears that for the non-zero-sum principle to apply to judgments of Communion, direct interaction between people is necessary. In line with this reasoning, we found almost no associations between overt behavior and perceiver effects for Communion in Study 2. Obviously, participants did not translate their expectations that others will be (un-)friendly into overt behavior. This would have been pointless, because having such behavior reciprocated was impossible. It should be noted, however, that the reciprocity correlation for Communion judgments in Study 2 was zero, and not negative, indicating that zero-sum is never a guiding principle with regard to judgments of Communion.

In total, the findings of the present study correspond well with earlier studies on reciprocity in social behavior (Carson, 1969; Horowitz et al., 2006; Kiesler, 1983; Sadler et al., 2011) and on reciprocity in self- and other-judgments (Tiedens & Jimenez, 2003; Tiedens et al., 2007). Many of these studies reported negative reciprocity correlations for the Agency domain and positive reciprocity correlations for the Communion domain. In fact, with regard to reciprocity in self- and other-judgments—a topic that was not of primary research interest in the current case—the findings largely replicated earlier results. As can be seen in Tables 1 and 4, both studies revealed positive correlations between perceiver effects and self-perception for Communion (cf. Tiedens & Jimenez, 2003), and at least Study 2 revealed a negative correlation between perceiver effects and self-perception for Agency (cf. Tiedens & Jimenez, 2003; Tiedens et al., 2007).

(The positive correlation in Study 1 might have been due to one of the confounding factors mentioned in the "Introduction," most likely the ingroup status of the target person.). In combination, the two principles postulated here (agentic-zero-sum and communal-non-zero-sum) appear to be rather general in nature, as they apply to reciprocity of self- and other-judgments (Tiedens & Jimenez, 2003; Tiedens et al., 2007), complementarily in interpersonal behavior (Carson, 1969; Horowitz et al., 2006; Kiesler, 1983; Sadler et al., 2011), and reciprocity of perceiver effects and target effects (the primary contribution of the present work).

Next to shedding more light on the nature of Agency and Communion, the current results also help reconcile seemingly discrepant findings in the person perception literature, namely divergent general reciprocity correlations across studies (Kenny, 1994). Thus far, no convincing explanation has been offered for why reciprocity correlations are positive in some studies and negative or zero in others. Our studies suggest that the directionality of these correlations depends on the trait domain. They tend to be negative for Agency judgments and (when direct interaction is possible) positive for Communion judgments. Thus, reciprocity correlations are another case where content matters in the sense that results are crucially different for the Agency and the Communion domain (Abele & Wojciszke, 2007; Gebauer, Haddock, Broemer, & von Hecker, 2013). However, for this pattern to become fully visible, self-reports have to be controlled.

This finding is noteworthy as it suggests that in the study of social perception, where phenomena such as social projection, self-other-agreement and reciprocity are partially related, meaningful patterns can be masked if only zero-order effects are investigated (Gebauer et al., 2014; Gebauer et al., 2015).

The arguments outlined here might have even broader implications. The literature on goal pursuit has shown that the pursuit of communal goals that deal with affiliation or friendship leads to greater satisfaction than the pursuit of agentic goals that deal with status and power. The typical explanation for these effects is that many agentic goals are not intrinsically rewarding (Emmons, 1991; Kasser & Ryan, 1996; Ryan et al., 1999). However, if Agency is indeed a limited resource that tends to be distributed among interaction partners in a zero-sum fashion, then pursuing agentic goals has another major disadvantage: One person's gain will tend to come at other people's costs. By definition, it is impossible that everyone succeeds at getting ahead of others, and each winner will leave losers. In sharp contrast, due to the non-zero-sum nature of Communion, competition is much less of a problem for communal goals, and in the end, all interaction partners will profit if one person reaches his or her communal goal. Accordingly, in total, it should be more rewarding for persons to pursue communal goals than to pursue agentic goals, yet not necessarily because agentic goals are not intrinsically rewarding, but simply because there is less competition for communal goals and the attainment of communal goals comes at nobody's cost. Future research might address this possibility.

Finally, our considerations contribute to the debate about the interpersonal consequences of Agency and Communion. A popular model suggests that Agency may be more relevant to the person who acts, whereas Communion may be more relevant to others (Abele & Wojciszke, 2014). The present investigation suggests, however, that a person's Agency may also be highly relevant to other people, because it may directly curtail their own chances of being agentic.

Concluding Remarks

Throughout the past decades, an impressive body of evidence has demonstrated that social judgments fall into the two broad dimensions of Agency and Communion. The major contribution of the current research was to shed light on a key aspect in which Agency and Communion differ fundamentally—namely, the distribution of relative gains and losses for interaction partners, and on how this difference is manifested in social perception. We hope that the new insights gained by this research might lead to a better understanding of agentic and communal behaviors, attitudes, perceptions, and personality traits .

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Notes

1. It should be noted that Agency is a relatively broad construct. Besides power (also called "status" or "control"), content facets such as competence, creativity, or determination are often subsumed under that label. However, lay judges as well as many scientific authors tend to group these facets together (e.g., Leising & Bleidorn, 2011), potentially conflating a person's actual attempt to make an impact with the person's mere *potential* for doing so.
2. In addition, a number of cues tapping more into impressions at a macro level than into clearly defined behaviors was assessed (e.g., "appears self-assured"). However, to be able to distinguish actual behavior from observers' impressions (which are covered by the ratings of the four standard perceivers and thus were the basis of target effects), we only included cues that assessed rather clearly defined behavior in our analysis.

Supplemental Material

The online supplemental material is available at http://pspb.sagepub.com/supplemental.

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