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The Relationship between Social Status and the Components of Agency

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Abstract

Building on the two fundamental dimensions of social judgment distinguishing communion from agency, the purpose of the present work was to show that the strength of the relationship between social status and agency depends on specific component at issue: assertiveness, competence and effort. Four experimental studies were conducted using two complementary paradigms. In Studies 1 and 2, we manipulated social status and participants had to rate the target on competence, assertiveness, and effort. In Studies 3 and 4, we reversed the design. Results consistently showed that social status was primarily related to assertiveness, somewhat related to competence, and only slightly related to effort. The present research provides a better understanding of how the dimensions of social judgment are used to explain differences in social status.

Key words: Social Status, social Judgment, Big Two

There is growing evidence in the literature that two recurrent and relatively independent dimensions underlie social judgments, regardless of whether targets are the self, other individuals, or social groups (e.g., Abele & Wojciszke, 2007; Fiske, Cuddy, Glick, & Xu, 2002; Judd, James-Hawkins, Yzerbyt, & Kashima, 2005). These two dimensions, recently called the “Big Two” (Abele & Wojciszke, 2013; Paulhus & Trapnell, 2008), have been variously named, for instance communion versus agency (Abele & Wojciszke, 2007; Bakan, 1966), warmth versus competence (Fiske et al., 2002), morality versus competence (Wojciszke, 2005), other-profitability versus self-profitability (Peeters, 1992), social desirability versus social utility (Dubois & Beauvois, 2005). In line with Abele and Wojciszke (2014), we will use the terms ‘communion’ and ‘agency’ in our research, because these terms are broad enough to cover different components, like morality and sociability in the case of communion (Brambilla, Rusconi, Sacchi, & Cherubini, 2011; Leach, Ellemers, & Barreto, 2007), or competence and motivation in the case of agency (Abele & Wojciszke, 2014). The purpose of the present paper is to examine the relevance of distinguishing different components of agency in line with social status, which has been consistently shown to be strongly related to this dimension (Fiske et al., 2002; Oldmeadow & Fiske, 2007).

### **The Big Two and their components in Social Judgment**

Despite different labels used in the literature, there is agreement on the common core of the two fundamental dimensions of social judgment: Communion refers to social relatedness, that is the individual’s desire for affiliation with others encompassing qualities such as friendliness, kindness, politeness, honesty, and trustworthiness; agency refers to individual strivings, that is the individual’s desire to advance his or her own interests encompassing qualities such as independence, ambition, dominance, competence and efficiency (Abele & Wojciszke, 2007, 2013; Fragale, Benson, Xu, & Merideth, 2009). In other words, communion reflects a concern with others and their interests, and involves qualities that are profitable for

people interacting with the target, while agency reflects a concern with self, self-interests, and efficiency in their attainment, and involves qualities that are profitable for the trait possessor himself (Peeters, 2001). This common core has also been empirically verified. Abele and Wojciszke (2007) compared several of these dichotomies asking participants to rate three hundred traits on scales relevant to these different conceptualisations. They found that a two-factor structure resulted from these ratings showing that these conceptualisations were empirically close.

However, despite this common core and the encompassing nature of these two fundamental dimensions, each dimension seems to gather different meanings upon one single banner, as can be seen from the traits used to capture their content. As recently outlined by Dubois and Beauvois (2012), honesty and friendliness, for instance, two traits traditionally associated to communion, do not belong to the same register of meaning. The same semantic discrepancies can be observed when considering agency, for example, ambition and competence.

In line with these semantic discrepancies within each dimension, research on social judgment recently suggested that the “Big Two” could be further broken down into various facets. In this perspective, recent work showed that communion encompasses two distinct components, sociability (e.g., pleasant, nice, open, etc.) and morality (e.g., honest, frank, righteous, etc.) (Brambilla et al., 2011; Leach et al., 2007; Mignon, Mollaret, Rohmer, & Bages, 2016). Concerning agency, Abele and her colleagues (Abele, Cuddy, Judd, & Yzerbyt, 2008) suggested in their editorial of a special issue on the fundamental dimensions of social judgment that this dimension goes beyond competence (e.g., capable, efficient, intelligent), and also encompasses a motivational facet referring to the intent to satisfy one’s own concerns (e.g., ambitious, goal-oriented, assertive). This distinction between the component of competence on the one hand, and the motivational facet on the other hand, has already received some empirical support. For example, recent work showed that assertiveness defined as the motive to promote

the self (e.g., ambitious, assertive, and self-confident) could be empirically distinguished from competence defined as the efficiency in the achievement of tasks (e.g., competent, efficient, and capable), and that these two components were differently processed in impression formation (Carrier, Louvet, Chauvin, & Rohmer, 2014; Mollaret & Miraucourt, 2016).

However, motivation does not necessarily refer to the intent to satisfy one's own interests, but may also refer to the intent to do his/her best to perform a task (e.g., hard-working, persevering, conscientious). In other words, motivation can be task-oriented (effort), rather than self-oriented (assertiveness). This distinction between self- and task-oriented motivation has been recently highlighted in a study showing that assertiveness (self-oriented motivation) is primarily associated with performance goals, whereas effort (task-oriented motivation) is primarily associated with mastery goals (Cohen-Laloum, Mollaret, & Darnon, 2017). The distinction between task-oriented motivation (effort) and competence has been classically introduced in research on causal attribution. In his original model of the naïve analyses of action, Heider (1958) already posited that the result of an action was a function of personal and environmental factors, the former encompassing two highly distinct aspects: ability and motivation (intention, effort). In the same vein, Weiner (1986) pointed out the importance of considering other distinctions beyond the locus of causality (internal versus external) to improve our understanding of causal explanations of success and failure, namely the distinction between two different internal factors: ability and effort. The distinction between competence and effort was also recently introduced in research on social judgment toward persons with disability, suggesting that these persons are stereotypically evaluated as low on competence (e.g., incompetent, unproductive), but high on effort (e.g., hard-working, courageous) (Louvet & Rohmer, 2010; Rohmer & Louvet, 2011).

Building on the basic distinction between the two fundamental dimensions, the purpose of the present work was to show that agency can be broken down into three different

components, as recently suggested by Dubois and Beauvois (2012): An instrumental component reflecting ability (competence), and two motivational components reflecting intents, the first one self-oriented (assertiveness), and the second one task oriented (effort). We can note that these three components approximately match the three personality dimensions related to active engagement defined by Ashton and Lee (2001): Surgency, i.e. the tendency to become actively engaged in behaviors oriented toward controlling others with traits such as dominant, self-assured, independent (assertiveness), conscientiousness, i.e. the extent to which people engage in behaviors that tend to improve accuracy in the completion of tasks with traits such as organized, orderly, hardworking (effort), and intellect, i.e. the tendency to become engaged in idea related endeavour (competence).

### **The relationship between the components of the vertical dimension and social status**

Agency has been consistently shown to be strongly related to social status. A substantial body of empirical work suggested that people tend to believe that high-status individuals and groups are more assertive, ambitious, competent, intelligent, etc. than low-status individuals and groups. This robust relationship has been demonstrated using a wide variety of status manipulations, such as social categories (Fiske et al., 2002; Fragale et al., 2009; Nier, Bajaj, McLean, & Schwartz, 2013), occupations (Conway, Pizzamiglio, & Mount, 1996; Fragale et al., 2009; Fragale, Overbeck, & Neale, 2011), socio-economic markers such as income (Brambilla, Sacchi, Castellini & Riva, 2010; Johannesen-Schmidt & Eagly, 2002) or type of housing (Oldmeadow & Fiske, 2007), and even fictitious groups differentiated on status markers such as priority access to resources (Conway et al., 1996; Nier et al., 2013). The link between social status and competence has also been theoretically addressed. According to the Stereotype Content Model, relative status determines evaluations of a group's competence, such that high status groups are perceived as more competent than low-status groups (Fiske et al., 2002). In a similar vein, the status expectation theory argues that individuals with a structural advantage

over others are expected to display a high level of assertiveness and competence (Ridgeway, Boyle, Rosenberg, Kuipers, & Robinson, 1998).

An important next step is to address the relationship between social status and the components of agency: Are assertiveness, competence, and effort equally related to social status? Recent empirical work partially addressed this question. For example, Fragale et al. (2009) showed that high-status targets were perceived as more self-concerned (ambitious, dominant, confident, independent), i.e. more assertive than low-status targets, whereas status was not systematically related to ratings on competence. Similarly, Dubois (2010) showed that managers' perceived competence did not differ as a function of their hierarchical position, whereas traits such as "ambitious" or "competitive", i.e. traits related to assertiveness, specifically characterized high-status managers. In the same way, in a recent work aiming at disentangling agency – what we would call here assertiveness, from competence (Carrier et al., 2014), the authors showed that high status targets were evaluated more favorably on assertiveness than low-status targets, whereas there was no difference between the two targets for competence. These results recently received further empirical support (Mollaret & Miraucourt, 2016). Taken together, these studies suggest the primacy of assertiveness over competence in status perception. However, contrary to self-oriented motivation (assertiveness), task-oriented motivation (effort) seems to be less related to social status than competence. For example, it has been shown that academic success is more related to perceived competence than to perceived effort (Rohmer & Louvet, 2013). Moreover, as mentioned above, persons with disability, a low-status group, are evaluated positively on effort, but negatively on competence (Louvet & Rohmer, 2010; Rohmer & Louvet, 2011), suggesting that social status may be more related to competence than to effort. Summarizing, there is already some empirical work distinguishing the role assertiveness and competence (Carrier et al., 2014; Dubois, 2010) or competence and effort (Louvet & Rohmer, 2010; Rohmer & Louvet, 2011, 2013) play in social judgment and status

perception. However, as far as we know, these three components of agency have been introduced only once within the same study (Cohen-Laloum et al., 2017). In their recent work focused on the social value of achievement goals, Cohen and colleagues showed in a pilot study that agency could be broken down into three subcomponents (assertiveness, competence and effort), and that assertiveness was more strongly correlated to socioeconomic resources than competence and effort: Participants' self-descriptions on assertiveness were more strongly correlated to their stated income than competence or effort were.

### **Present research**

The purpose of the present research was to systematically and experimentally explore the distinctive role played by assertiveness, competence, and effort in social status perception. We hypothesized a hierarchical organization of these three components of agency, suggesting that social status would be primarily related to assertiveness, and the least related to effort. In order to test these assumptions, we conducted four experimental studies using two different paradigms. In Studies 1 and 2, we evaluated the impact of a target's social status on perceived assertiveness, competence and effort. In Studies 3 and 4, we reversed the design by evaluating the impact of a target's assertiveness, competence or effort on perceived social status. Moreover, communion was introduced in all studies in order to make sure that, unlike competence, assertiveness, and effort, communion would not be related to social status. We did not distinguish between different components of communion (for instance morality and sociability) for two main reasons: First, we are interested in social status, which has been consistently shown to be related to agency, not to communion; second, components of communion have been shown to be more closely related than components of agency (Abele et al., 2008; Cuddy, Fiske, & Glick, 2008; Sutherland, Oldmeadow, & Young, 2016).

### **Study 1**



In this study, participants had to rate a target showing obvious signs of high versus low social status, such as income and type of housing. Participants were asked to judge the person on assertiveness, competence, effort, and communion. We predicted that status will have the greatest impact on assertiveness ratings, then on competence ratings, and finally on effort ratings. Moreover, status was not expected to impact communion ratings.

## **Method**

**Participants.** One hundred and forty-one French adults (73 males, 68 females) voluntarily took part in the study. They were between 18 and 65 years old ( $M = 35.54$ ,  $SD = 14.82$ ). All had work experience ranging from one to forty-one years ( $M = 15.41$ ,  $SD = 12.56$ ) in a large range of occupational areas.

**Procedure and materials.** Participants were approached in various public places, and asked to participate in a study on impression formation. They were randomly assigned to one of the two experimental conditions (high versus low status). Status manipulation was the same as that used by Carrier and colleagues (2014): Participants were provided a picture (always the same) and one of two versions of a brief description about an individual. This description differed on the following markers of social status: Income (3800 Euros versus 1400 Euros), and means of transport (private car versus public transport), type of housing (a large villa versus a small apartment), type of holidays (hotel in Tahiti versus camping in France). Specifically participants read: *“The person depicted on this photograph is named John. He is 47 years old and lives with his wife and his two children in a large villa (small apartment) near his workplace. Every morning he goes to work using his private car (public transport) after taking his youngest son to school. His income of 3800 Euros (1400 Euros) enables him to live in comfort (decently) and spend holidays with his family. Last year, he spent two weeks in a hotel in Tahiti (in a camping in a small French village).”* Next, participants were asked to rate the target on 7 point scales ranging from 1 (not at all) to 7 (extremely) on twelve traits referring

respectively to assertiveness (*ambitious, challenging, self-confident*), competence (*competent, intelligent, efficient*), effort (*hard-working, willful, persevering*) and communion (*warm, friendly, likable*). These traits were selected from previous research (Abele & Wojciszke, 2007; Carrier et al., 2014; Cohen-Laloum et al., 2017; Dubois, 2010; Dubois & Beauvois, 2012; Louvet & Rohmer, 2010; Rohmer & Louvet, 2011). Finally, to ensure that the status manipulation was successful, participants were instructed to rate on 7 point scales ranging from “very low” (1) to “very high” (7) the perceived status of the target with four items taken from previous research: educational level, job prestige, responsibilities, and socio-economic status (Carrier et al., 2014; Fiske et al., 2002).

## **Results and discussion**

**Check on the manipulation of social status.** In order to ensure that the status manipulation was successful, we examined perceived status ratings by averaging across the four status items (Cronbach’s  $\alpha = .90$ ). Analysis of variance revealed a highly significant difference in status ratings associated with high- and low-status targets,  $F(1, 139) = 53.83, p < .0001, \eta_p^2 = .28$ . As expected, target in the high-status condition was rated higher in status ( $M = 5.24, SD = 1.07$ ) as compared with target in the low-status condition ( $M = 3.86, SD = 1.18$ ). This result confirms that the status manipulation was successful.

**Social judgment as a function of social status.** First of all, in order to confirm that all items correctly loaded on the two fundamental dimensions (agency and communion), we performed a principal component analysis with Varimax rotation on the twelve items. Orthogonal rotation was retained in this first step because of conceptual independence of these two dimensions. The two components extracted showed the expected structure and explained a total of 50.70 % of the variance (all factor loadings  $> .50$ ). In a second step, we subjected the nine agency items to a principal factors extraction with oblimin rotation, in order to show that agency can be broken down in three correlated components. As expected, this analysis revealed

three clearly distinguishable factors. The first factor comprised all three assertiveness items: *self-confident* (loading: .80), *challenging* (.70), and *ambitious* (.65). The second factor comprised all three effort items: *willful* (.81), *hard-working* (.70), and *persevering* (.58). The third factor comprised all three competence items: *competent* (.88), *efficient* (.64), and *intelligent* (.48). Consequently, we computed composite scores for assertiveness (Cronbach's alpha = .68), competence (Cronbach's alpha = .67), effort (Cronbach's alpha = .64), and communion (Cronbach's alpha = .80) by averaging the ratings on the three traits of each dimension. Correlation analyses showed the expected pattern: Agency and communion were not correlated ( $r = -.10$ ;  $p = .25$ ), whereas positive correlations appeared between assertiveness and competence ( $r = .55$ ;  $p = .0001$ ), assertiveness and effort ( $r = .38$ ;  $p = .0001$ ), competence and effort ( $r = .49$ ;  $p = .0001$ ).

To examine differences in judgments as a function of the target's manipulated status, we performed a 4 (dimension: assertiveness, competence, effort, communion) x 2 (status: high, low) analysis of variance (ANOVA), with the first factor varying within participants and the second varying between participants. First, results revealed a significant main effect of dimension,  $F(3, 417) = 51.51$ ,  $p < .0001$ ,  $\eta_p^2 = .27$ , suggesting that the target was rated more positively on competence and effort than on assertiveness ( $p < .0001$  for both comparisons), and received the lowest ratings on communion ( $p < .0001$  for all comparisons). They also revealed a significant main effect of manipulated status,  $F(1, 139) = 11.29$ ,  $p < .002$ ,  $\eta_p^2 = .08$ , indicating that the high status target was rated more positively than the low-status target. More interestingly, this main effect of status was qualified by the expected dimension by status interaction,  $F(3, 417) = 34.29$ ,  $p < .0001$ ,  $\eta_p^2 = .20$ . Pairwise comparisons between the high- and the low-status target for each dimension separately revealed that participants evaluated the high-status target much more favorably on assertiveness,  $F(1, 139) = 55.31$ ,  $p < .0001$ ,  $\eta_p^2 = .28$ , somewhat more favorably on competence,  $F(1, 139) = 19.60$ ,  $p < .0001$ ,  $\eta_p^2 = .12$ , but not more favorably on effort,  $F(1, 139)$

= 1.70,  $p = .19$  than the low-status target. Moreover, the low-status target was evaluated more favorably on communion than the high-status target,  $F(1, 139) = 14.44$ ,  $p < .0003$ ,  $\eta_p^2 = .09$  (see Table 1).

This study offered encouraging initial support for our hypothesis that assertiveness, competence and effort play distinct roles in relation with social status. Replicating previous results (Carrier et al., 2014), assertiveness was more related to social status than competence. In addition, the present research interestingly showed that effort was not related to social status at all: The low- and high-status targets were seen as making an equal amount of effort. This result provides support for our hypotheses that self-oriented motivation (assertiveness) should not be confused with task-oriented motivation (effort), and that only self-oriented motivation is related to social status. Moreover, it is also worth noting that there is no difference between assertiveness, competence and effort within the high-status condition, whereas the low-status target was more associated with effort than with competence or assertiveness. This result provides further support to our hypothesis suggesting that effort does not necessarily ensure socio-economic success. Finally, contrary to our primary assumption, present results revealed a negative link between status and communion. This can be understood in line with the mixed stereotype content hypothesis (Fiske et al., 2002) and the compensation effect (Judd et al., 2005; Kervyn, Yzerbyt, & Judd, 2010), suggesting that targets judged high on agency (i.e., high status targets) are generally judged low on communion and vice versa. This mixed or compensatory pattern might result from just world thinking, namely that all individuals and groups have an equal amount of negative and positive characteristics (Kay & Jost, 2003).

## Study 2

In order to increase the external validity of the previous results, we introduced several changes between study 1 and 2. First, we used a within-participants design instead of a between-participants one. This procedure allows us to directly compare participants' ratings on each

dimension depending on the target's social status. Second, we changed the manipulation of social status. Whereas study 1 anchored status manipulation in the difference of wages between people (opposing affluent people to less affluent ones), we decided to anchor the status manipulation of study 2 in a professional hierarchy. For that purpose, we manipulated the status variable by showing participants several photos of offices illustrative of different levels of status and by asking them to imagine and describe the targets working in these environments with the same set of traits as in the first study. Indeed, several researches showed that people can draw consensual personality impressions easily from such tiny indices as offices (Gosling, Gaddis, & Vazire, 2008). Again, we expected this status manipulation to impact differentially each dimension, the greater influence being on assertiveness followed by competence, and effort. We expected no influence of status manipulation on communion.

## **Method**

**Participants.** Fifty-one students (21 males, 30 females) have accepted to participate voluntarily in this study. They were between 22 and 51 years old ( $M = 33.72$ ,  $SD = 11.54$ ) and were enrolled in management class at a master level.

**Procedure and materials.** Participants were contacted individually and asked to participate in a study on impression formation. Two pictures representing offices illustrative of different status (low vs. high), extracted from two different sets<sup>1</sup>, were projected on a screen in two different orders<sup>2</sup>. The pictures essentially differed by the size of the desks, of the rooms, and also by the quality of the chairs and desks, no people appeared on these pictures. Participants were asked to infer the personality of the person who was supposed to work in the office and to rate this person on 7 point scales ranging from 1 (not at all) to 7 (extremely) on the same twelve traits as those used in Study 1. Finally, to ensure that the status manipulation was successful, participants were instructed to rate on 7 point scales ranging from "very low" (1) to "very high"

(7) the perceived status of the target with two items taken from previous research: hierarchical position, and income (Carrier et al., 2014; Fiske et al., 2002).

## Results and discussion

**Check on the manipulation of social status.** In order to ensure the effectiveness of the status manipulation, we examined perceived status ratings by averaging across the two status items ( $\alpha = .86$ ). Analysis of variance revealed a highly significant difference in social status ratings associated with high- and low-status targets,  $F(1, 50) = 77.29, p < .0001, \eta_p^2 = .60$ . As expected, targets in the high-status condition were rated higher in status ( $M = 6.11, SD = 0.16$ ) than targets in the low-status condition ( $M = 4.17, SD = 0.18$ ).

**Social judgment as a function of social status.** To examine differences in judgments as a function of the target's manipulated status, we again computed four composite scores for assertiveness ( $\alpha = .89$ ), competence (.88), effort (.89), and communion (.89). We performed a 4 (dimension: assertiveness, competence, effort, communion) x 2 (status: low, high) analysis of variance (ANOVA), with the two factors varying within participants. First, results revealed a significant main effect of status,  $F(1, 50) = 55.62, p < .001, \eta_p^2 = .52$ , indicating that the high-status target was rated more positively than the low-status target. A significant main effect of dimensions,  $F(3, 150) = 56.95, p < .001, \eta_p^2 = .53$ , revealed that the target received the lowest ratings on communion than on any other dimension ( $p < .0001$  for all comparisons). These effects were qualified by the expected dimension by status interaction,  $F(3, 150) = 36.85, p < .0001, \eta_p^2 = .42$ . Pairwise comparisons between the high- and the low-status target for each dimension separately revealed that participants evaluated the high-status target much more favorably on assertiveness,  $F(1, 50) = 91.71, p < .0001, \eta_p^2 = .64$ , somewhat more favorably on competence,  $F(1, 50) = 44.29, p < .0001, \eta_p^2 = .47$ , but not more favorably on effort,  $F(1, 50) = 3.29, p = .07$  than the low-status target. Moreover, the low-status target was not evaluated more

favorably on communion than the high-status target,  $F < 1$ ,  $\eta_p^2 = .001$  (see Table 2). In order to directly compare the strength of the link between each dimension and status, we created a new analysis by computing, for each dimension, the difference between the high- and the low-status conditions. We submitted these difference scores to a within-participants ANOVA. The main effect of dimension was significant,  $F(3, 150) = 25.69$ ,  $p < .001$ ,  $\eta_p^2 = .34$ . In accordance with our hypothesis, the means ordered linearly from communion ( $M = 0.09$ ), to effort ( $M = 0.44$ ), to competence ( $M = 1.36$ ) and to assertiveness ( $M = 3.04$ ),  $F(1, 50) = 33.08$ ,  $p < .001$ ,  $\eta_p^2 = .40$ . A series of paired comparisons showed that all the means differed significantly from each other ( $F_{assertiveness-competence}(1, 50) = 31.46$ ,  $p < .001$ ,  $\eta_p^2 = .38$ ;  $F_{assertiveness-effort}(1, 50) = 39.65$ ,  $p < .001$ ,  $\eta_p^2 = .44$ ;  $F_{assertiveness-communion}(1, 50) = 29.99$ ,  $p < .001$ ,  $\eta_p^2 = .37$ ;  $F_{competence-effort}(1, 50) = 22.56$ ,  $p < .001$ ,  $\eta_p^2 = .31$ ;  $F_{competence-communion}(1, 50) = 11.41$ ,  $p < .001$ ,  $\eta_p^2 = .18$ ;  $F_{effort-communion}(1, 50) = 4.97$ ,  $p < .05$ ,  $\eta_p^2 = .09$ ).

Globally, the results of this study replicated those of study 1. Again, assertiveness was the dimension that differentiated the most targets as a function of their status followed by competence; effort hardly differentiated the targets. Moreover, similarly to study 1, the low-status target was most associated with effort and least with assertiveness. This time, the reversed pattern was observed in the high-status condition: The high-status target was more associated with assertiveness than with competence or effort. In sum, in line with recent work (Cohen-Laloum et al., 2017; Mollaret & Miraucourt, 2016), this study provides additional empirical evidence that agency encompasses an instrumental (competence) and a motivational component including self-oriented (assertiveness) and task-oriented (effort) motivation, and that these three components of agency are unequally related to social status.

### Study 3

To further explore the relationship between assertiveness, competence, effort and social status, we reversed the experimental design. This time, rather than asking participants to rate high- versus low-status targets on assertiveness, competence, effort and communion, we manipulated targets' assertiveness, competence, effort or communion and asked participants to evaluate their social status. We predicted that assertiveness would be more related to status perception than competence, and that competence would be more related to status perception than effort. Moreover, communion was not expected to impact status perception.

## **Method**

**Participants and experimental design.** One hundred and sixty eight students (122 females and 46 males) took part in this study. Their ages ranged from 17 to 54 years ( $M = 22.63$ ,  $SD = 5.82$ ). The experimental design used two between-participants factors: 2 (valence of the portrait: positive, negative) x 4 (dimension: communion, effort, competence, assertiveness).

**Procedure and materials.** The study was presented as dealing with social perception. The participants were tested individually and received a booklet of three pages. The instructions were given on the first page, the second page contained the portrait of the target and the third one contained the different measures. After completion, the participants were debriefed and thanked. Each participant saw the portrait of a target that was known by his/her responses to a personality questionnaire composed of 12 positive adjectives (the same as those used in Studies 1 and 2). The responses of the target were manipulated in order to make him/her appeared as positive (his/her responses to the three traits were 10 or 11 on an 11-points scale) or negative (his/her responses to the three traits were 1 or 2 on an 11-points scale) for one of the dimension, while being neutral (i.e., from 5 to 7) on the three other dimensions. Thus, eight portraits were elaborated, one half concerned the positive portraits of each dimension, and the other half, the negative portraits. Participants were instructed to rate on 7 point scales ranging from "very low" (1) to "very high" (7) the perceived status of the target, its social prestige, and its income. The



answers to these three questions were averaged ( $\alpha = .77$ ). One further question assessed the target's income asking to write a free estimation of the salary. Finally, the manipulation check question presented a short definition of the four components, and for each one asked the participants to rate the target on 7point scales ranging from "not at all" (1) to "absolutely" (7).

## Results and discussion

**Check on the manipulation of the dimensions.** For each target (i.e., the positive assertiveness target), we compared the means obtained by the target on the manipulated dimension (i.e., assertiveness) to the means obtained on the three other dimensions with a series of Student *t* test for paired samples. The manipulation proved to be effective when the mean of the target on the manipulated dimension (i.e., positive assertiveness) was different of the mean of the target on the non-manipulated dimensions (i.e., positive competence, positive effort, and positive communion), and in the expected direction (i.e., a positive assertiveness target should have a higher score than all other targets). All the comparisons were significant ( $p < .05$ ) and in the expected direction.

**Main results.** We will first examine the effects of valence and dimension on (a) the subjective scales of status, and then on (b) the open-ended income scale<sup>3</sup>. The scores to the subjective scales of status were submitted to a 2 (valence of the portrait: positive *vs* negative) x 4 (dimension: communion *vs* effort *vs* competence *vs* assertiveness) ANOVA with both factors varying between-participants.

The results showed a main effect of valence,  $F(1, 160) = 106.76, p < .001, \eta_p^2 = .40$ , revealing that negative targets were perceived more negatively than positive ones. More importantly, the expected interaction between the two variables was also significant,  $F(3, 160) = 8.92, p < .001, \eta_p^2 = .14$ . Pairwise comparisons (see, Table 3a) between the positive and the negative target for each dimension separately revealed that participants evaluated the assertive target much more favorably on social status than the non-assertive target  $F(1, 160) = 55.14, p <$

.0001,  $\eta_p^2 = .25$ . The same pattern appeared for competence,  $F(1, 160) = 48.06, p < .001, \eta_p^2 = .23$ , and for effort,  $F(1, 160) = 27.67, p < .001, \eta_p^2 = .14$ . No significant effect appeared for communion,  $F < 1, \eta_p^2 = .005$ .

Scores to the open-ended income scale were submitted to the same ANOVA as above. The results showed a main effect of valence,  $F(1, 160) = 104.90, p < .001, \eta_p^2 = .39$ , revealing that negative targets were perceived more negatively ( $M = 1439$ ) than positive ones ( $M = 2529$ ). More importantly, it revealed the expected interaction between the two variables,  $F(3, 160) = 13.50, p < .001, \eta_p^2 = .20$ . Pairwise comparisons (see, Table 3b) between the positive and the negative target for each dimension separately revealed that participants evaluated the assertive target much more favorably on social status than the non-assertive target,  $F(1, 160) = 85.95, p < .0001, \eta_p^2 = .35$ . The same pattern appeared for competence,  $F(1, 160) = 45.27, p < .001, \eta_p^2 = .22$ , and for effort,  $F(1, 160) = 10.79, p < .001, \eta_p^2 = .006$ . No significant effect appeared for communion,  $F(1, 160) = 1.19, p = .27, \eta_p^2 = .007$ .

To further explore the relative contribution of each component to status perception, we regressed status perception on each component (assertiveness, competence, effort, warmth measured with the manipulation check questions) and all the interactions (all independent variables were centered). The global model was significant,  $R = .48, F(15, 152) = 3.05, p < 0.001$ , and the only significant predictor was assertiveness,  $b = 0.31, t(152) = 4.48, p < .001$ . We made the same analysis with the other dependent variable (income scale) and the results were very similar. The global model was also significant  $R = .46, F(15, 152) = 2.85, p < 0.001$ , and the only significant predictor was assertiveness,  $b = 0.04, t(152) = 3.38, p < .001$ .

Whether the measure of social status was subjective or objective did not change the results, they were consistent with those obtained in the first two studies. Assertiveness was the

dimension most related to status perception, followed by competence, and then by effort. Communion was not linked to status. Interestingly, when simultaneously introducing assertiveness, competence, effort, and communion as potential predictors of social status, only assertiveness appeared to be significant. Thus, the main message resulting from this study is that reversing the causal path between status and dimension do not seem to change the meaning of the results. In order to confirm these last results we conducted a last experiment by changing the manipulation of the dimensions.

#### Study 4

In order to increase the external validity of results obtained in Study 3, we changed the manipulation of dimension. This time, rather than manipulating the portrait of the target by adjectives related to the different dimensions, targets were described with behaviors. Moreover, as in study 2, we decided to anchor the manipulation of dimensions in the professional domain by using behaviors performed at work, related to assertiveness, competence, effort, or communion.

#### Method

**Participants.** One hundred and twenty four French adults (65 males, 59 females) voluntarily took part in the study. Their ages ranged from 18 to 64 ( $M = 30.59$ ,  $SD = 12.86$ ). All had significant work experience ranging from one to forty-eight years ( $M = 9.50$ ,  $SD = 11.92$ ) and were currently employed in a large range of occupational areas. The experimental design was the same as the one used in Study 3, introducing two between-participants factors: 2 (valence of the portrait: positive, negative) x 4 (dimension manipulated: communion, effort, competence, assertiveness).

**Procedure and materials.** The study was presented as dealing with social perception. The participants were tested individually. Each participant saw the portrait of a target that was described by three behaviors that this target had performed at work. The three behaviors were

diagnostic of one of the four dimensions manipulated (assertiveness, competence, effort, and communion). These portraits were pre-tested in order to make sure that each portrait was diagnostic of the manipulated dimension. 20 men and 21 women (age:  $M = 39.76$ ,  $SD = 11.95$ ) were asked to judge the four portraits on 12 traits on a scale ranging from -3 (not at all) to +3 (extremely). These traits were similar to those used in Studies 1 to 3, and referred to assertiveness (ambitious, self-confident, dominant), competence (competent, capable, efficient), effort (motivated, willful, hard-working), and communion (warm, friendly, likeable). The manipulation proved to be effective when the mean of the portrait on the manipulated dimension was different of the means of this portrait on the non-manipulated dimensions, and also different of the means of the other portraits on the manipulated dimension. Series of Student  $t$  test for paired samples showed that all these comparisons were significant, and in the expected direction ( $p < .001$ ). For example, the portrait of the assertive target was rated more positively on assertiveness than on competence, effort, and communion; it was also rated more positively on assertiveness than the three other portraits. In order to introduce valence, half of the participants were presented with targets that lacked the corresponding manipulated behaviors. All portraits are presented in Table 4.

Participants were instructed to rate on 7 point scales ranging from “very low” (1) to “very high” (7) the perceived hierarchical position of the target person and his level of responsibilities in the organization. The answers to these two questions were averaged ( $\alpha = .85$ ). Furthermore, participants were asked to write a free estimation of the occupation of the target. Their answers were recoded with a 3 point scale ranging from low status (1) to high status (3) by two independent raters. Agreement between these two raters was very high ( $r = .90$ ); when their responses diverged, the mean score between the two responses was used.

## **Results and discussion**

We submitted (a) the mean score of the two status scales, and (b) the open-ended

occupation scale to a 2 (valence of the portrait: positive, negative) x 4 (dimension: communion, effort, competence, assertiveness) ANOVA with the two factors varying between-participants. The results for the mean score of the two status scales showed a main effect of valence,  $F(1, 116) = 24.62, p < .0001, \eta_p^2 = .18$ , revealing that negative targets were perceived more negatively than positive ones. This main effect of valence was qualified by the expected valence x dimension interaction,  $F(3, 116) = 15.76, p < .0001, \eta_p^2 = .29$ . Pairwise comparisons (see Table 5 a) between the positive and the negative target for each dimension separately revealed that participants evaluated the assertive target much more favorably on social status than the non-assertive target,  $F(1, 30) = 54.86, p < .0001, \eta_p^2 = .65$ . The same pattern appeared for competence,  $F(1, 27) = 15.39, p < .0006, \eta_p^2 = .36$ , but effect size was about twice as small as that of assertiveness. No significant effect appeared for effort,  $F(1, 29) = 3.84, p = .06$ . Interestingly, the warm target was evaluated more negatively on social status than the non-warm target,  $F(1, 30) = 5.32, p < .03, \eta_p^2 = .15$ .

A similar pattern of results emerged for the recoded open-ended occupation scale (see Table 5 b). This analysis also showed the expected valence x dimension interaction,  $F(3, 116) = 5.40, p < .002, \eta_p^2 = .12$ . Pairwise comparisons between the positive and the negative target for each dimension separately again revealed that participants attributed a higher social status to the assertive target than to the non-assertive target,  $F(1, 30) = 11.95, p < .002, \eta_p^2 = .28$ . However, no significant effect appeared for competence,  $F(1, 27) = 0.86, p = .36$ , effort,  $F(1, 29) = 0.22, p = .65$ , and communion,  $F(1, 30) = 3.87, p = .06$ .

To further examine the relative contribution of each component to status perception, we again regressed status perception on each component (assertiveness, competence, effort, warmth measured with the manipulation check questions) and all the interactions (all independent variables centered). The global model was significant,  $R = .81, F(15, 108) = 14.32, p < 0.001$ , and

the only significant predictor was assertiveness,  $b = 0.46$ ,  $t(108) = 4.03$ ,  $p < .001$ . Such a regression analysis was not performed for the second dependent variable (occupation), insofar as for this scale, social status appeared to be exclusively linked to assertiveness.

In line with study 3, the results of this study replicated the hierarchical influence of the dimensions on status perception. Status perception was primarily determined by assertiveness, whereas effort seemed to have very little or nothing to do with status. Again, when introducing simultaneously assertiveness, competence, effort, and communion as potential predictors of social status, only assertiveness appeared to be significant. These results nicely corroborate previous findings suggesting that socio-economic success is primarily drawn from assertiveness. This relationship between assertiveness and social status can be explained by the fact that assertiveness is obviously related to a concern with self, self-interests, and efficiency in goal attainment (Abele & Wojciszke, 2007), all components seen as crucial to succeed in our individualistic societies (Dubois & Beauvois, 2005).

Finally, in contrast with study 3, communion was negatively related to status perception. However, this negative relationship between communion and status already appeared in Study 1. It has also been highlighted in previous research on compensation effects in social judgments showing that individuals or groups perceived as agentic, were often devaluated on communion (Judd et al., 2005; Kervyn et al., 2010).

### **General discussion**

Building on the two fundamental dimensions of social judgment that distinguish between social relatedness and individual strivings (Abele & Wojciszke, 2013), the purpose of the present work was to show that this second dimension can be broken down into different components: An instrumental component reflecting ability (competence), and two motivational components reflecting effortful intentions, the first one self-oriented (assertiveness), and the second one task-oriented (effort). In line with the Stereotype Content Model (Fiske et al., 2002) and a substantial

body of empirical work suggesting that high-status individuals and groups are seen as more assertive, ambitious, competent, or hard-working than low-status individuals and groups (e.g., Brambilla et al., 2010; Oldmeadow & Fiske, 2007), the present work aimed to show that the strength of this relationship depended on the specific component at issue. We hypothesized that social status would be primarily related to perceived assertiveness, somewhat related to perceived competence, and only slightly related to perceived effort. In order to test these hypotheses, we conducted four experimental studies using two complementary paradigms. In Studies 1 and 2, a target's social status was manipulated by socioeconomic markers (Study 1) or photos of offices illustrative of the worker's hierarchical position (Study 2). We evaluated the impact of the target's social status on perceived competence, assertiveness, and effort. In Studies 3 and 4, we reversed the design. This time, we manipulated targets' assertiveness, competence, or effort by presenting a portrait of a target described by personality traits (Study 3) or behaviors at work (Study 4). Participants were then asked to evaluate the social status of the target. Moreover, communion was introduced in all studies in order to make sure that, unlike competence, assertiveness, and effort, communion would not be related to social status. Results consistently showed that, as predicted, assertiveness was primarily related to social status. Competence was also significantly related to social status in all studies, but effect sizes were substantially weaker than for assertiveness. Effort was not systematically related to social status, and when the relationship was significant, effect sizes were generally weaker than for the two other components.

These differences between assertiveness, competence, and effort in their relative link to social status can be understood from different perspectives. A first possible interpretation of our results is that psychological traits could be conceived as a rationalization of a given position in the social hierarchy. Actually, this interpretation can take two forms. The first form relies on Social Role Theory (Johannesen-Schmidt & Eagly, 2002; Koenig & Eagly, 2014), and states that

observations of groups' roles determine stereotype content. In this way, one can imagine that people learn from observation that most people engaged in low-, middle-, or high-status roles differ in how assertive, competent or effortful they are, with those differences being stronger on the first of these dimensions and weaker on the last. This interpretation rests on the descriptive function of stereotypes (e.g., stereotypes are descriptive tools that correspond to people's actual properties). However, stereotypes are not simply descriptive but are also highly prescriptive (McGarty, Yzerbyt, & Spears, 2002; Rudman & Glick, 2001). The prescriptive nature of stereotypes affirms that people are not only described in a certain manner because they act in such or such manner but also because they are *expected* to act that way. Following this second form of the rationalization hypothesis (Correll & Ridgeway, 2003), our results could possibly reflect the fact that, depending on their social status, people are expected to be or to act in a certain way. Thus, one can consider that because the roles of people who are engaged in high-status occupations (and thus are affluent), are essentially decisional, these people are expected to direct and control other people. In other words, the expectation is that they act with assertiveness. In contrast, because the roles of people engaged in middle- and low-status occupations (and less affluent ones) are more instrumental, they gain the reputation for investing mentally or physically in task completion. And, in between,, intermediate occupations are generally associated with mastery of procedures or with problem solving method roles, thus, competence and abilities are probably expected for these kinds of roles. In contrast, because low-status occupations require less ability and can be enacted by the mere investment of will, effort is probably the kind of trait expected for them.

A second interpretation of our results refers to the evaluative perspective of social judgment (Dubois & Beauvois, 2005, 2012; Pansu & Dubois, 2013). According to this approach, the two fundamental dimensions of social judgment are not two aspects of the psychological nature of persons, but two aspects of the social value attributed to persons in a given context.



“Social desirability” (i.e., communion) is rooted in the interpersonal domain and is defined as the value held by a person in his or her relationship with other people. “Social utility” (i.e., agency) is rooted in societal functioning and defined as the value held by a person in a social organization. It must be understood in a quasi-economic sense, similar to “market value”. Insofar as social utility indicates the benefit that a society can obtain from a person, an important next question concerns values promoted in this society. Our western societies involve the primacy of individual goals over collective ones and a focus on the self rather than on others. Consequently, persons motivated to promote the self, that is assertive persons, are assigned a high level of social utility, and thus high-status positions. Unlike assertiveness, competence, defined as the efficiency in the achievement of tasks, and effort, defined as the motivation to give of their best to perform a task, are both task-oriented and not self-oriented. Consequently, effort and competence do not necessarily serve personal interests, but may even primarily serve the interests of others (Carrier et al., 2014). In societies promoting individual success and the primacy of individual goals, these persons are assigned a lower level of social utility than assertive persons. Moreover, insofar as competence has been shown to be more related to success than effort, competence can be considered as holding a higher level of social utility than effort (Rohmer & Louvet, 2013), and consequently as being more related to social status.

Finally, it should be noted that communion was either not or negatively related to social status. The negative relationship between status and communion can be understood in line with research on compensation effects (Judd et al., 2005; Kervyn et al., 2010). According to this approach, when an individual or a group is perceived as more agentic than another, then the latter is perceived as more communal and vice versa. In other words, negative evaluations on one of the two fundamental dimensions of social judgment are somewhat compensated by positive evaluations on the other one. This compensation effect is seen as resulting from justice considerations: People prefer a balanced view of the social system in which all individuals or

groups have strengths and weaknesses (Kay & Jost, 2003; Kay, Jost, & Young, 2005).

Consequently, when status differences are legitimated by assigning a higher level of agency to high status targets, low status targets should be compensated for their lack of agency by a heightened attribution of communion. This rationale allows low status individuals or groups to retain positive social identity and high status individuals or groups to manifest magnanimity toward low status targets and to appear non-discriminatory (Cambon & Yzerbyt, 2016; Cambon, Yzerbyt, & Yakimova, 2015).

To conclude, the main findings in the current research were replicated using two complementary experimental designs manipulating social status in different ways in Studies 1 and 2, and then manipulating agency-related characteristics in different ways in Studies 3 and 4. Our results are quite robust across all four studies. However, it is also worth mentioning some limitations which could be explored in future research. First, social status, defined as the relative rank of individuals or groups within the social hierarchy, was assessed by socio-economic markers traditionally used in the literature (income, housing, type of office). Nevertheless, recent work suggests that social status may encompass other dimensions, especially dominance or power, defined as the extent to which individuals or groups can control others' outcomes, and prestige or respect, defined as the extent to which individuals or groups are highly regarded by others on the basis of their virtues or abilities (Fragale et al., 2011; Mattan, Kubota, & Cloutier, 2017). Secondly, our studies explore a specific evaluative context, namely a work context. We have no guarantee that these results would be similar in other evaluative contexts such as in a school setting. In this perspective, recent work suggested discrepancies between valued qualities for workers and pupils. Whereas communal qualities are not (or only weakly) related to perceived achievement and status at work, for pupils, communion is judged to be a noticeable part of academic achievement (Spinath, Eckert, & Steinmayr, 2014). With regard to agency, whereas we showed that success at work was primarily related to assertiveness, being assertive

(leader, dominant or competitive) is often considered as a potential cause of problems in school performance. In the same way, whereas we observed a weak association between socioeconomic success and effort, effort is consistently judged as the key of academic success (Spinath et al., 2014; Verniers, Martinot, & Dompnier, 2016). It could be relevant to further explore these aspects in specific studies.

Thirdly, these four empirical studies were conducted using French samples, thus, one may legitimately wonder whether our results could be generalized to other groups. A further step will be to replicate these findings in other countries and cultures. In this vein, a recent cross-cultural study analyzed the relation and the differential effects of two facets of agency (assertiveness and competence), by comparing data from Asia, Australia, Europe, USA, and showed little cultural differences between these facets (Abele, Hauke, Peeters, Louvet, Szymkow, & Duan, 2016). It would be interesting to pursue this type of effort and to test more systematically the relation between social status and the different components of agency in various countries.

Nevertheless, focusing on the breakdown of the agency into three components (assertiveness, competence, and effort), we hope the present research will provide a useful addition to the growing literature on the Big Two, and a better understanding of how the dimensions of social judgment are used to justify social inequalities.

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Table 1

*Mean judgment scores (and Standard Deviations) as a function of social status and dimension (Study 1)*

|             | communion    | effort      | competence   | assertiveness |
|-------------|--------------|-------------|--------------|---------------|
| Low status  | 4.65 (1.06)a | 5.27 (.92)c | 5.00 (.69)cd | 4.10 (1.03)f  |
| High status | 3.97 (1.05)b | 5.45 (.74)c | 5.57 (.81)ce | 5.37 (.99)c   |

N.B.: For each column and for each line, means with different subscripts are significantly different at  $p < .05$ .

Table 2

*Mean judgment scores (and Standard Deviations) as a function of social status and dimension  
(Study 2)*

|             | communion   | effort      | competence  | assertiveness |
|-------------|-------------|-------------|-------------|---------------|
| Low status  | 3.25 (.17)a | 4.58 (.18)c | 3.96 (.13)b | 3.13 (.20)a   |
| High status | 3.58 (.18)a | 5.02 (.13)d | 5.32 (.15)d | 6.17 (.18)e   |

N.B.: For each column and for each line, means with different subscripts are significantly different at  $p < .05$ .

Table 3a

*Mean scores (and Standard Deviations) on social status as a function of valence and dimension (Study 3)*

|          | communion    | effort       | competence   | assertiveness |
|----------|--------------|--------------|--------------|---------------|
| negative | 3.68 (0.19)b | 2.70 (0.19)a | 2.89 (0.18)a | 2.87 (0.18)a  |
| positive | 3.94 (0.18)b | 4.12 (0.18)b | 4.76 (0.19)c | 4.91 (0.20)c  |

N.B.: For each column and for each line, means with different subscripts are significantly different at  $p < .05$ .

Table 3b

*Mean scores (and Standard Deviations) on salary as a function of valence and dimension (Study 3)*

|          | communion    | effort       | competence   | assertiveness |
|----------|--------------|--------------|--------------|---------------|
| negative | 1634 (189)bc | 1498 (194)bc | 1357 (185)ab | 1268 (185)a   |
| positive | 1911 (185)cd | 2220 (185)d  | 2635 (194)e  | 3351 (199)e   |

N.B.: For each column and for each line, means with different subscripts are significantly different at  $p < .05$ .

Table 4

*Behavioral stimuli (Study 4)*

| Dimension     | Behavior  |
|---------------|---|
| Assertiveness | <p data-bbox="448 465 1417 504">During the last discussion, X didn't think twice about taking the floor first.</p> <p data-bbox="448 566 1417 674">During a teamwork, X's opinion wielded the greatest influence on the final decision.</p>   |
| Competence    | <p data-bbox="448 741 1394 779">X is the kind of person who gives advice, but doesn't like to be given any</p> <p data-bbox="448 842 1050 880">X easily adapts to new working environments.</p> <p data-bbox="448 943 1401 1048">X quickly found a solution when confronted with a complex work-related issue.</p> <p data-bbox="448 1111 1225 1149">X has recently been commended for the quality of his work.</p> |
| Effort        | <p data-bbox="448 1216 1358 1254">X spent a lot of time and energy understanding new working methods.</p> <p data-bbox="448 1317 1182 1355">X preferred to finish his work rather than going to lunch.</p> <p data-bbox="448 1417 1050 1456">X works hard to do his job as well as possible.</p>  |
| Warmth        | <p data-bbox="448 1514 1145 1552">X helped a new colleague to become part of the team.</p> <p data-bbox="448 1615 1385 1720">X is greatly appreciated by his colleagues because he's always in a good mood.</p> <p data-bbox="448 1783 1406 1899">X spent hours and hours discussing with a colleague who had problems at work.</p>   |

Table 5 a

*Mean scores (and Standard Deviations) on social status as a function of valence and dimension (Study 4)*

|          | communion    | effort       | competence    | assertiveness |
|----------|--------------|--------------|---------------|---------------|
| negative | 4.53 (1.51)a | 4.00 (1.35)a | 2.68 (1.25)d  | 2.57 (1.06)d  |
| positive | 3.34 (1.40)b | 4.80 (.84)c  | 4.60 (1.38)ce | 5.56 (1.22)cf |

N.B.: For each column and for each line, means with different subscripts are significantly different at  $p < .05$

Table 5 b

*Mean scores (and Standard Deviations) on occupation as a function of valence and dimension (Study 4)*

|          | communion    | effort       | competence   | assertiveness |
|----------|--------------|--------------|--------------|---------------|
| negative | 2.13 (0.72)a | 1.56 (.63)b  | 1.50 (.76)b  | 1.69 (.79)ab  |
| positive | 1.63 (0.72)a | 1.67 (.62)ab | 1.73 (.59)ab | 2.56 (.63)c   |

N.B.: For each column and for each line, means with different subscripts are significantly different at  $p < .05$

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<sup>1</sup> No main nor interaction list effects appeared, thus we excluded this variable from all subsequent analyses.

<sup>2</sup> No main nor interaction order effects appeared, thus we excluded this variable from subsequent analyses.

<sup>3</sup> The natural logarithm of income was analyzed to account for the skewness of the income distribution, however, we reported the raw means in the tables.