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Self-conscious emotions and social status

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Aims of the thesis

The aim of the current thesis is to investigate the nature of social status and its effect on self-conscious emotions. More precisely, we studied whether material or social aspects of high status have a greater effect on what makes people proud or envious. Six studies using different methodology gave empirical evidence for the prominent role of social factors over material goods in the generation of these emotions. Furthermore, our results verified, that in a material society like ours, individuals tend to exaggerate the importance of tangible resources when they think about what would make them proud. Although previous research on self-conscious emotion neglected the investigation of subjective social factors this thesis and our publications shed light to their importance and opens new areas of research.

The structure of the thesis is the following: In the first part, I introduce the reader the psychology of social status. Although social status is a multi-faceted construct, here I present the evolutionary approach of why status hierarchies are beneficial for group welfare and how emotions contribute to social status in general. Afterwards, I define self-conscious emotions and their development and then present the two main emotions of the thesis: the definition and social function of pride and envy. At the end of the introduction I outline the research questions and hypotheses. In the Methods and Results section I present six studies: Study 1-4 are related to pride research and Study 5-6 are related to envy. Although each study is followed by a brief discussion, in the next big section, the General discussion I summarize the findings, their significance and contribution to existing knowledge and of course the limitations of the studies.

I. Introduction

I.1. The psychology of social status

I.1.1. The definition of social status

Over the past several decades, researchers have come to recognize the complexity, and ubiquity of *individual differences* in social status. Psychologists, neuroscientists, health researchers, sociologists, anthropologists, and even physicist are working together to seek answers to questions like: How social structures are formed? How status differences emerge and what are the dynamics behind these processes? What are the consequences of high and low social status on relationships or even health and life-expectancy?

The social structure is the most complex and multi-layered ranking phenomena of life. In the present thesis we will call these structures as hierarchy according to previous scholars in the field (for a rev. see Anderson & Willer, 2014), but we would like to note that this term does not represent a power order, but rather focuses on individual differences. (The other way of interpretation would be the “network approach” originating from Moreno (1934) and Mérei (1988) and we would talk about centrality and number of connections.)

Social hierarchies projected to the individual level can be detected by the individuals’ own social status. By definition, “social status might be defined as hierarchical position in relation to that of others in a society *or* social context” (Åslund, Leppert, Starrin, & Nilsson, 2009, pp. 55). It is important to note, that in the present thesis we use the term social status within a social context, not at the societal level.

From an evolutionary perspective individual’s social status can be defined as the extent of the access to resources, where these resources mean food or mating and directly serves survival goals. In evolutionary terms, high-rank means privileged access to valued resources and low-rank means less access (Homans, 2017; Magee & Galinsky, 2008; Mazur, 1973; Zitek & Tiedens, 2012).

In the modern world social status is related to more symbolic factors and serve survival goals in a more indirect way. Although, still in the modern world, there is ample evidence suggesting that social status is a predictor of both morbidity and mortality (Mackenbach et al., 1997; Marmot, 2004; Wilkinson, 1999, 2006). High social status has repeatedly been shown to be a protective factor against illnesses and death in adult populations. Four possible explanations for health inequalities have been articulated: artefact explanations, theories of natural and social selection, materialist/structural explanations, and cultural/behavioural explanations (Macintyre, 1997). However, all these explanations focus on more the societal level and access to health care rather than the individual, therefore in the present thesis we aim to focus on the latter one.

In their inspiring work, Aslund et al (2009) introduce a “status-shaming model” for the explanation of the relation between low social status and poor health outcomes and postulates that social status may influence the risk for depression when an individual is subjected to shaming experiences (i.e ridicule and humiliation). In more details, it means, that falling out of status and being rejected, or worse, excluded from a social group one wishes to be a part of, is the most common source of shame (Gilbert, 1997), which forms a basis for psychological and physical pathologic reactions, presumably through chronic stress (Scheff, 1992). Therefore, we can hypothesize that being accepted by others can lead to opposite feelings of shame, namely pride.

I.1.2. The function of social status

Ideally, if a hierarchy is mutually accepted by its’ members, it can minimize costly agonistic conflicts, establish order and help coordination within the social group (Berger, Rosenholtz, & Zelditch Jr, 1980).

According to the *functionalist view of social status*, clear hierarchies are advantageous for the group because the desire of the group members for reaching higher status motivates group-oriented behaviors (Griskevicius, Tybur, & den Bergh, 2010). Although there are several other theories about hierarchies which emphasize the inequality and

negative consequences of power hierarchies (for a rev. see Hunyady, 2012). Although, in the present thesis we would like focus not on on power orders but rather individual differences in social comparison. In line with the functionalist view, *micropolitics theory* (Anderson & Cowan, 2014; Anderson & Willer, 2014) proposes that there are two fundamental processes of how an individual's social status is composed: (1) group members' evaluations on valued features which the candidate must possess and (2) the candidate's motivation for reaching higher status. Micropolitics theory defines status as a function of the group members' evaluations and decisions about who deserves high rank (Bales et al., 1951; Berger et al., 1972). Accordingly, group members make a consensus on what features are appreciated for high status and they evaluate each member along these qualities.

The valuable features can vary from group to group (Anderson & Cowan, 2014), but in general attributes can be sorted by two main features. First, the candidate should appear to possess *competencies*, which are primary to reach the group's goals. For e. g. physical strength will help an individual to attain status in a sport team, because this ability will help the team to win games. Although, superior leadership skills can help to attain status in a work project, as this skill is useful to facilitate cooperation and work performance. Second, the higher status candidate must appear *collectively minded* and willing to use these competencies to benefit the group's success (Ridgeway, 1982). In sum, group members are motivated to increase their value in the eyes of other group members by emphasizing those qualities which fit the preferred status.

If a higher status candidate possesses most of the valuable characteristics he/she will be approved for higher status by other members of the group. Although it is important to note, that these evaluations of group members are basically subjective and not always in line with the actual characteristics or behavior of the evaluated individuals (Anderson & Cowan, 2014).

I.1.2. The attainment of social status

Summarizing micropolitics theory, individuals are not passive recipients of status but they actively seek and attain current or higher status by emphasizing their preferred qualities. Although an extensive research identified a wide range of attributes and behaviors that influence rank attainment, these findings lack an integrated framework which can serve as a theoretical basis for rank differentiation. The *Dominance-Prestige Model* was developed to address this disparity (Cheng, Tracy, Foulsham, Kingstone, & Henrich, 2013; Henrich & Gil-White, 2001). The Dominance-Prestige Model is based on evolutionary approach and states that social hierarchies arise from two main systems of rank allocation.

Dominance entails intimidating subordinates by threatening them with retaining resources and it is positively related to narcissistic self-aggrandizement, aggression, and negatively related to agreeableness (Cheng, Tracy, & Henrich, 2010; Henrich & Gil-White, 2001). Dominance arose in response to agonistic conflicts over scarce resources and therefore widespread in the animal kingdom, although it can appear in human relationships as well. A big difference is that among humans, the induction of fear is rather psychological than physical. Dominance is typically observed in dyadic relations, like bully and victim or boss and employee.

However, individuals using *prestige* to attain their status are not feared but respected by group members because they possess cultural knowledge and skills and they are open to share these resources (Henrich & Gil-White, 2001). Group members respect and seek out the opinion of prestigious others and make efforts to imitate and learn their superior skills and knowledge. Learning from these prestigious others is a low-cost way to acquire fitness-maximizing skills from an evolutionary perspective.

I.1.3. The two main forms of social status

As individuals are motivated to reach and attain high social status, it is important to make clear what constitutes social status. Previous research provided empirical evidence, that the differentiation between the objective and subjective side of social status is fundamental regarding

many psychological constructs, such as negative affectivity, pessimism, stress, control over life, active and passive coping (Adler, Epel, Castelazzo, & Ickovics, 2000), mental health (Franzini & Fernandez-Esquer, 2006), well-being (Howell & Howell, 2008), depressive symptoms (Hoebel et al., 2017).

Subjective social status refers to “a person’s belief about his location in a status order” (Davis, 1956), referring to an individual’s perception of his/her place in the socioeconomic structure. Theoretically, the concept of subjective social status is wider than that of “relative social standing” (Jackman & Jackman, 1979) which is more a by-product of income inequality research.

The more prominent role of SSS over OSS was the subject of mainly medical studies. According to these studies, being socially rejected increases chronic stress which presumably altering neuroendocrine functions is associated with, for example, depression, (Gilbert & Allan, 1998) obesity (Pasquali & Vicennati, 2000) and untimely death (Marmot, 2004; Operario, Adler, & Williams, 2004). In their status-shaming framework Aslund et al (2009) notes, that how we perceive ourselves in relation to others is what causes a stress reaction, rather than objective facts and therefore leads to poor health outcomes (in their study, depression).

According to one of the most common assessment of SSS (the MacArthur ladder by Adler et al., 2007) the level of SSS can be represented on a “social ladder” where high status individuals take place on the top, while low status individuals are on the bottom of the ladder. Individuals with high status receive respect and admiration from their significant others and they have large influence in their social groups. However, low status members receive no respect, no admiration, and have no influence in these groups (Shaked, Williams, Evans, & Zonderman, 2016). In sum, SSS refers to the perceived relative position in important reference groups which is based on perceived respect, admiration and influence.

Contrasting to SSS, *objective social status* (OSS) consists of measures of such status indicators as education, income, occupation, financial wealth, household goods, type of habitation, and type of car, etc.

(Adler et al., 2007). Therefore, perceived objective status is based on material possessions, tangible resources and educational background which do not necessarily involve perceived respect, admiration and influence.

Regarding the measurement of OSS is still a challenge for scientific research. The present thesis is based on the pioneer work of Adler and colleagues (2000) because this was the most cited one and the most reliable. According to Adler et al (2000) three traditional measures exist for OSS: education, household income and occupation. In their study comparing SSS and OSS, education was measured by highest degree earned and was coded into four categories: (1) high school degree, (2) college degree, (3) master's degree, and (4) higher degree (including doctorate and law degree). Household income was coded into four categories: (1) \$10,000 or less, (2) \$10,001-430,000, (3) \$30,001-\$50,000, and (4) \$50,001 or more. Occupation was coded into three categories: (1) blue collar or service, (2) clerical/self-employed, and (3) professional or managerial and SSS was measured by the MacArthur ladder.

However, several other methods exist for the measurement of OSS. Presenting all existing alternatives of OSS measures would overcome the aims of the present thesis we present the beginning point of this area of research and the latest results.

According to Adams & Weakliem (2011), August Hollingshead's "Four Factor Index of Social Status" (1975) may be the most cited but unpublished paper in the American sociology. For the first sight it may seem contradictory how can be something unpublished the most cited but in 2011 the Yale Journal of Sociology published the working paper (https://sociology.yale.edu/sites/default/files/files/yjs_fall_2011.pdf). Hollingshead began to work on a method of social classification that could be readily applied in survey research in the 1940s. He began with a three-factor index based on area of residence, occupation and years of school completed by the head of the household (Hollingshead & Redlich, 1953). This index contains a list of occupations grouped into 9 categories (with 1 equal to farm laborers/mental service workers and 9 equal to higher executives, proprietors of large businesses, and major professionals). On

the other hand, given the challenges in measuring social status with income and consumption over the past decades (almost century), proxy indicators have been developed (Poirier, Grépin, & Grignon, 2020). Wealth indices use information about household durable assets, such as housing materials, toilet or latrine access, phone ownership, or agricultural land and livestock, which are regularly collected in most household surveys to create an index of household wealth.

Regarding the relationship between OSS and SSS, Centers (1949) emphasized that individuals who were classified as belonging to poorer socioeconomic groups, did not have to think about themselves as inferior to others. In relevant social groups (e.g., family, friends), these individuals may experience admiration or respect as a result of skills or knowledge, leading to higher levels of SSS. In line with this, those with the highest OSS may feel unappreciated and disrespected (low SSS) by their significant others. Moreover, SSS may reflect not only the current social circumstances of an individual but also incorporates with the individual's past or future prospects (Singh-Manoux, Marmot, & Adler, 2005). It can explain that someone can have a high SSS without actually high OSS or vice versa.

I.1.4. The function of emotions in the social hierarchy

As SSS and OSS are imponderable, affective components play a key role both in status display and status perception processes. Based on Steckler & Tracy (2014), affects can be related to social status in three distinct, yet interrelated ways.

First, the *experience* of a status related emotion promotes such behaviors which facilitate the navigation in the social hierarchy. According to the “affect as information” hypothesis (Clore, Gasper, & Garvin, 2001; Schwarz & Clore, 1983), emotions have a function to inform individuals about their relative social worth. In other words, individuals use their perceptions of internal states to draw conclusions about their relative social rank, their place and role in the social context. Moreover, based on motivational theories, emotions can directly motivate behaviors

to improve social rank. For e.g. positive feelings toward the self (i.e. pride) inform the individual about high social rank and promotes the maintenance of this high status by certain status-maintenance strategies (Cheng et al., 2010). Although, feeling envious informs the individual that someone else is better off and motivates to enhance status (Crusius & Lange, 2017).

Second, *nonverbal displays* of status-related emotions may help the navigation in the social hierarchy as they represent one's current social rank or a change in social rank to observers. (Tiedens & Fragale, 2003). Communicating status-relevant information helps group members to avoid costly disputes which can appear when individuals' social rank levels are unknown. Therefore, signaling status may allow group members to quickly know how social interactions should proceed. For example, manifested pride displays are important signals of high social status even in the presence of contradicting contextual information (Cheng et al., 2010; Tracy, Shariff, & Cheng, 2010). In case of envy, nonverbal displays are not well known, because those who experience envy are typically unwilling to admit their relatively lower rank and instead seek to improve it (Steckler & Tracy, 2014).

Third, closely connected to nonverbal displays, emotions influence social navigation when they are *perceived* by others. Recognizing and automatically interpreting status-relevant emotions and their meaning, perceivers are able to adjust their behavior in an adaptive manner. For e.g., perceiving pride gives information about high social rank so individuals know who to respect, and who has control over resources. In case of perceiving being envied by someone else, individuals can draw conclusions about possible status threat by the envier ((Lange & Crusius, 2015a). The processes of displaying and perceiving emotions are almost the same, but it is important to emphasize the different benefits for both displayers and observers and that perceiving emotions can be influenced by many other intra- and interindividual differences (Bolló et al., 2020).

I.2. Self conscious emotions

A certain subgroup of emotions, called the self-conscious emotions are critically involved in status dynamics. These socially complex emotions include pride, shame, envy, contempt and admiration (Steckler & Tracy, 2014). In the current thesis we focus on pride and envy as these two emotions are interrelated (Lange & Crusius, 2015b).

As self-conscious emotions lay between two main areas of interest of psychological research, namely the self and emotions, they were a neglected area over the years for the following reasons: First, in the past, emotion researchers were largely interested in the biological roots of affects. Although this approach had several fundamental implications regarding the neural underpinnings, interactions with basic mental processes and automatically decoded nonverbal displays, this approach has also led researchers to neglect psychologically complex emotions. Second, at the same time, research on the self was pervaded by the information-processing paradigm in the late 1970s USA and oriented towards questions about how the self “works”. However the role of emotions was restricted to positive or negative affect resulting from self-serving biases (Robins, Gosling, & Craik, 1999; Tracy, Robins, & Gosling, 2003). As a result of these theoretical paradigms, topics laying in between the two approaches were crowded out of interest.

Although, identifying specific emotions and investigating their role is critically important because different emotions are related to different behavioral outcomes and unique dispositions (Tracy, Robins, & Tangney, 2007). For e.g. shame promotes withdrawal whereas guilt promotes restorative behaviors such as apology (McGarty et al., 2005; J. P. Tangney, 1995; J. P. E. Tangney & Fischer, 1995).

I.2.1. The process model of self-conscious emotions

Self-conscious emotions origin from internal evaluations of our own skills and behaviors in relation to normative standards or how we imagine other people appraise us (Tracy et al., 2007). For e.g. if we evaluate a success due to our efforts and others respect us it will promote

the emotion of pride, or if we attribute a failure to our own shortcomings and others despise us, it will promote shame. Therefore, self-conscious emotions are inherently about social relationships – connections of the self with others (Lewis, 2007; Lewis, Sullivan, Stanger, & Weiss, 1989).

Based on previous theory and research on causal attributions and emotions (e.g. Covington & Omelich, 1981; Jagacinski & Nicholls, 1984; Weiner et al., 1987); cognitive appraisals and emotions (e.g. Frijda, 1986) and self-evaluative processes (e.g. Carver & Scheier, 2002; Duval & Wicklund, 1972; Higgins, 1987) Tracy and colleagues (2004) established the process model of self-conscious emotions and described how an eliciting event will lead to different self-conscious emotions like pride, shame, embarrassment, etc. First of all, if there is an eliciting event the individual must appraise if this event is relevant to survival goals. If the event is relevant to survival, it will elicit one of the basic emotions (Nesse, 1990), however if the event is irrelevant to survival it will elicit no emotion. The only but important exception is identity goals (see later).

According to the model, in the second step, self-representations must be activated (explicitly or implicitly) in order for self-conscious emotions to occur. Self focused attention is elementary to make comparisons between self-representations and the eliciting event in the further steps (Tracy & Robins, 2007b). Therefore, these first two “steps” are rather basic requirements that must be fulfilled in order to talk about self-conscious emotions.

The most crucial point in the formation of self-conscious emotions is the appraisal of identity-goal relevance. In other words it means that individuals appraise an event like “Does it matter for who I am or would I like to be?”. Next, identity-goal congruence should be taken into account. In other words, individuals consider questions like “Is this event congruent with my goals for who I am and who I want to be?”. Individuals may notice a discrepancy between current, actual, and ideal self-representations, and appraise the event as identity-goal congruent or incongruent resulting in positively (e.g. pride) or negatively valenced (e.g. shame) self-conscious emotions (Higgins, 1987).

Once an event has been appraised as congruent or incongruent with identity goals, the next step is to determine the cause. These appraisals concern causal locus (Heider, 1985, Frijda, 1986). Although these appraisals are complex and involve many aspects, in sum we conclude that individuals must attribute the eliciting event to internal causes to elicit self-conscious emotions (Lewis & Michalson, 1983; J. P. E. Tangney & Fischer, 1995; Weiner, 1985). (For a detailed description of these attributions please see Tracy et al., 2007 Chapter 1.)

Besides causal locus, to differentiate between self-conscious emotions, three additional appraisals must be conducted, namely stability, globality and controllability. For e.g. shame involves negative feelings about the stable, global self, whereas guilt involves negative feelings about a specific behavior or action taken by the self (Lewis, 1971; Lewis, 2000; Tangney & Dearing, 2002). Contrasting to shame and guilt, an individual can become embarrassed by events caused by internal, stable, uncontrollable, and global aspects of the public self.

I.2.2. The development of self-conscious emotions

The development of self-conscious emotions can be dated around the second year of the lifespan (Lewis et al., 1989). Self-conscious emotions are sometimes also called as 'secondary' or 'derived' emotions (Lewis & Michalson, 1983; Plutchik, 1970) because they arise later in childhood, than the 'primary' or 'basic' ones such as anger, happiness, surprise, disgust, sadness, and fear (Ekman, 1999). Early theorists proposed that secondary emotions derive from the primary ones and are composed of the combination of the basic emotions (Plutchik, 1970). Later, other theorist proposed that although these secondary emotions follow the primary ones in time, but are not composed of them (Izard, 1984). Recently, emotion science states that emotions are tied to cognitive processes: those ones needing the least cognitive support emerge first, and those needing more cognitive abilities emerge later (Lewis & Michalson, 1983). For e.g. happiness becomes pride when individuals credit

themselves for a positive event (Tracy, Cheng, Robins, & Trzesniewski, 2009).

Because self-conscious emotions are results of complex cognitive evaluations between the self and internalized standards, first children must develop a kind of *self-awareness*. Furthermore, the person must be able to recognize an *external standard* (for e.g. a rule, an expectation from parents, a self goal, etc.) and be equipped cognitively to *adopt the standard* and make evaluations about his or her behavior relative to the standard (Lagattuta & Thompson, 2007) to experience self-conscious emotions. Social factors play a prominent in the development of the latter two conditions.

Around the first year, children become interested in what other people looking at or how others react emotionally to the world around them (Lagattuta & Thompson, 2007). In this period, children are more willing to approach an object which was previously associated with an adult's positive reactions and avoid those objects which were associated with an adult's negative emotional reaction (Moses, Baldwin, Rosicky, & Tidball, 2001). These findings indicate that 12-months-old infants can adjust their behavior according to adults' emotional reaction and understand adults' evaluations and judgments about events of shared interest. These so-called *referential behaviors* are keystones of social life as they not only enable infants to gather information about people and objects in the world, but they also allow them to learn others' expectations about their behavior (Lagattuta & Thompson, 2007). For e.g. when a mother shows her enthusiasm towards a child's drawing, drawing will be associated with a positive emotional valence for the child. As a result of social referencing, children learn to form connections between their own behaviors and others' emotional reaction (Thompson, Meyer, & McGinley, 2006).

In the next phase of the development of self-conscious emotions, shortly after the age of 2, infants become to sense their personal responsibility in achievement tasks. After finishing a task they actively seek the attention of their social context (Stipek, Recchia, McClintic, & Lewis, 1992). The desire for self-competence in this age is so strong, that infants can become quite anxious when a model shows a task which is too

complicated to imitate by their own. This anxiety can be a first sign of an internal evaluation that he/she has failed to meet a standard for performance (Kagan et al., 1981).

I.2.3. Pride

Among self-conscious emotions, pride is the most fundamental affective background of high social status. Based on evolutionary theory and supported by empirical research, Tracy et al. (2010) established the Two-facet Model of pride. They differentiated authentic and hubristic pride which have evolved to maintain status in different ways (Tracy & Robins, 2007b, 2007a).

Authentic pride is experienced when the attribution of success is internal, unstable and controllable (Lewis, 2007; Tracy et al., 2009). In other words, according to the terminology of attribution theory (Weiner, 1985; Weiner et al., 1987), authentic pride is experienced, when success is attributed to effort. For e.g. the individual might think that “I win because I practiced a lot.” Individuals high in genuine self-esteem tend to experience the more “authentic” pride, marked by confidence, productivity, and self-worth (Tracy & Robins, 2007b). Furthermore, authentic pride is associated with extraversion, agreeableness, conscientiousness, satisfying social relationships, high self-esteem, prosocial behaviors, achievement-orientation and mental health (Cheng et al., 2010; Tracy et al., 2009; Tracy & Robins, 2007b, 2007a).

Hubristic pride is experienced if the attribution of success is internal, stable and uncontrollable (Lewis, 2007; Tracy et al., 2009). According to the terminology of attribution theory (Weiner, 1985; Weiner et al., 1987), hubristic pride is experienced when success is attributed to abilities. For e.g. the person might think that ‘I win because I am the most talented.’. In contrast to authentic pride, it is related to more antisocial and aggressive behaviors (Tracy & Robins, 2007b). It is associated with disagreeableness, neuroticism, lack of conscientiousness, narcissism, problematic relationships, and poor mental health outcomes (Cheng et al., 2010; Tracy et al., 2009; Tracy & Robins, 2007b, 2007a).

Nevertheless, the Two-facet model by Tracy and colleagues (2007) is well supported by numerous and multimethod empirical research, an alternative conceptualization has to be taken into account. The Merited Success/Unmerited Display model (M/U model) of pride (Holbrook, Piazza, & Fessler, 2014a, 2014b) questions the construct validity of the Two-facet Model considering how the facets of pride are measured by the 7 item Authentic and Hubristic Pride Scale (Tracy & Robins, 2007b). The M/U model suggest an alternative process model for the experience of authentic vs. hubristic pride, considering if success was merited or unmerited. The authors propose if success is merited (regardless of its attribution to effort or ability) it will enhance authentic pride, while unmerited success will enhance hubristic pride.

I.2.4. Pride and social status

Self-conscious emotions have a fundamental role in the navigation of the social hierarchy. Pride is the most important emotion related to *high social status* (Steckler & Tracy, 2014). Pride has a fundamental affective role in the attainment and signaling of high social status (Cheng et al., 2013, 2010). Therefore, the social function of pride is to express high status which is beneficial for both displayers and observers (Martens, Tracy & Shariff, 2012). Displayers receive deference from others while observers get valuable information about the allocation of resources.

A main difference between the two facets of pride is that authentic and hubristic pride have evolved to motivate different *status maintenance strategies*. More precisely, authentic pride is related to prestige-based status maintenance and hubristic pride is related to dominance-based status maintenance (Cheng et al., 2013, 2010) and both dominance and prestige refer to the attainment of high social rank.

As discussed above, *dominant strategies* include intimidating subordinates by threatening them with retaining resources and it is positively related to narcissistic self-aggrandizement, aggression, and negatively related to agreeableness (Cheng et al., 2010; Henrich & Gil-White, 2001). The psychological correlates of hubristic pride contribute to

dominance-based status maintenance. In other words, the subjective experience of arrogance and superiority, deriving from hubristic pride promotes the individual to be capable of using threatening strategies, related to dominance (Cheng et al., 2010).

However, individuals using *prestige-based status maintenance strategies* are not feared but respected by group members because they possess cultural knowledge and skills and they are open to share these resources (Henrich & Gil-White, 2001). Prestige is negatively related to aggression and neuroticism and positively related to genuine self-esteem, social acceptance, extraversion, conscientiousness, openness, and authentic pride (Cheng et al., 2013, 2010). Authentic pride contributes to prestige-based status maintenance as it mentally predisposes the individual to be capable of using constructive strategies (i.e., confidence, agreeableness, openness, and accomplishment) to be respected by others (Cheng et al., 2010).

I.2.5. Envy

Pride is crucial for status seeking and attainment, envy is the negative emotion experienced in response to another person's higher status. By definition, envy is the painful emotion that arises when an individual lacks another person's superior quality, achievement or possession and either desires the advantage or wishes that the envied person would lack it (Parrott & Smith, 1993; Smith & Kim, 2007).

Envy always derives from *social comparison with similar others* and in high self-relevant domains (Salovey & Rodin, 1984). People can make these social comparisons automatically (Mussweiler, Rüter, & Epstude, 2004), even without the presence of the envied person (Festinger, 1954).

The primary goal of social comparison processes is to acquire information about the self (Festinger, 1954). Although these comparisons happen automatically, there are some circumstances which calls the need to acquire information via comparisons, namely stress, change and uncertainty (Festinger, 1954). Regarding that these circumstances have a

negative valence they carry the risk as well that the result of the comparison will lead to negative information about the self which Brickman & Bulman (1977) called the “pain of social comparison”. These types of evaluations will be accompanied by envy.

Besides situational factors, people tend to differ in the propensity to compare themselves with others (Gibbons & Buunk, 1999), envy is considered to be a personality disposition with two qualitatively different forms. Malicious envy drives people to lower the status of a superior other, while benign envy motivates individuals to increase their own status, often by increasing personal effort (Lange & Crusius, 2015a; Salovey & Rodin, 1984). According to some scholars (Miceli & Castelfranchi, 2007; Schoeck, 1969) only *malicious envy* should be considered as envy proper, because this facet is associated with hostility, destructive social consequences and resentful thoughts towards the other person (Salovey & Rodin, 1984). Malicious envy entails more negative thoughts about the envied other (Van de Ven, Zeelenberg, & Pieters, 2009). Furthermore, in case of malicious envy, the focus of attention is rather the envied person than the envy object (Crusius & Lange, 2014; Hill, DelPriore, & Vaughan, 2011).

On the other hand, beside the lack of hostile thoughts and behavior, *benign envy* can be considered as envy proper as well, because it also contains the frustration caused by the comparison with a similar superior other (Lange & Crusius, 2015a, 2015b; Neu, 1980). In contrast to malicious envy, benign envy entails more positive thoughts toward the envied person (Van de Ven et al., 2009) and is associated with increased effort (Lange & Crusius, 2015a). Benign envy is characterized by a desire to get the envied person’s advantage, thus the attention focuses on the means to attain the upward goal (Crusius & Lange, 2014).

Although both types of envy have common features – such as high frustration level, deriving from upward social comparison with high self-relevance – the appraisal pattern behind benign and malicious envy is basically different. One important difference is *personal control* which refers to the perceived ability to do something about the event (Van de Ven, Zeelenberg, & Pieters, 2012). When individuals feel that they have

no opportunity to improve their own status constructively, they will become hostile (Rawls, 2009). Thus, low personal control increases malicious envy, and high personal control increases the probability of benign envy (Van de Ven et al., 2012).

Another important determinant of benign vs. malicious envy is perceived *deservingness* of the superior outcome of the envied person. The subjective feeling of injustice is related to hostile tendencies (Smith, 1991). Furthermore, if envious people perceive that someone was undeservedly better off, they become less cooperative (Parks, Rumble, & Posey, 2002). Consequently, if individuals attribute other's advantage as undeserved, it will contribute to malicious envy. Meanwhile, if people attribute the superior others advantage as deserved, it will elicit benign envy (Van de Ven et al., 2012).

I.2.6. Envy and social status

As envy is a social emotion it has a function to regulate social hierarchies. The functional goal of envy is to regulate social status by leveling the difference between the self and the superior other (Van de Ven et al., 2009). From an evolutionary perspective, high social status means important social benefits which contribute to survival and reproduction goals (Anderson, Hildreth, & Howland, 2015). Furthermore, people tend to confer high competence to those who are on the top of the social hierarchy even in the absence of objective criteria for skills and knowledge (Anderson & Kilduff, 2009). Based on these reasons, individuals have a fundamental motivation to achieve high status, so they should be equipped with underlying emotions which help them to navigate the social hierarchy (Steckler & Tracy, 2014).

According to this, envy is an adaptive status-related emotion because it signals individuals about their own shortcomings relative to superior others in status relevant domains (Crusius & Lange, 2017; Hill & Buss, 2008; Lange & Crusius, 2015a; Steckler & Tracy, 2014).

Recently, scholars have started to examine what triggers the most envy, but the results are still contradictory. A study by Lin and colleagues

(Lin, van de Ven, & Utz, 2018) found that posting experiential purchases (e.g. travelling) on social network sites triggered more envy than posting material purchases (e. g. new car). On the other hand, some scholars suggest that as material purchases are easier to compare, they are more likely to generate social comparisons and therefore elicit envy (Carter & Gilovich, 2010; Smith & Kim, 2007).

I.3. The current research

The above summary of the current literature on the relationship between self-conscious emotions and social status shed light that although there are quite some empirical investigations of these dynamics, there are still some contradictions. To understand the underlying dynamics we propose to take a step back and investigate the evoking element of these emotions, namely: *status*.

I.3.1. Pride and social status

Pride is experienced after complex cognitive evaluations of the eliciting event. These evaluations include causal attributions of emotions (e.g. Weiner, 1985), cognitive appraisal theory (e.g. Lazarus, 1991; Scherer, 2001), and self-evaluative processes (e.g. Carver & Scheier, 1998; Higgins, 1987). As pride is one of the most relevant status-related emotions, investigating the nature of this eliciting event, namely the gained status, may be relevant to understand the dynamics of the two facets.

Although the relationship pattern of pride and status maintenance is well-known and proved by empirical research, these studies did not investigate what type of social status is maintained by prestige or dominance. In this research, we focused on the relationship between pride and social status from a new perspective by investigating objective social status (OSS) and subjective social status (SSS) separately. Differentiating subjective and objective status can give us a deeper insight into the dynamics of status-related pride. It is important to know what kind of

status is relevant to feel authentic pride because it can have several applied implications, for example in a workplace context (Lu & Roto, 2016).

First, as SSS is based on the perceived respect, admiration and influence of the reference groups, we hypothesized that SSS is more strongly related to pride than OSS. Pride is interpreted as the outcome emotion of the group's subjective evaluation of the given person's success (Tracy & Robins, 2007b), which is mainly based on the feedback of the relevant social groups and less on the objective resources (e.g., level of education, money, different goods). Therefore, in the current research we hypothesized that OSS and SSS have differentiated effects on the two facets of pride.

Second, we expected that SSS and OSS are not only directly related to the two facets of pride, but prestige and dominance can play a mediating role as well. We expected that subjective social status will be related to authentic pride via prestige for the following reasons: if individuals experience respect, admiration and influence in their relevant social groups they will be able to use prestige-based status maintenance strategies such as sharing cultural resources, like their skills and knowledge which can promote authentic pride (Cheng et al., 2013, 2010). Individuals with high SSS do not have to experience being threatened by losing their position, as the group members confirm their status with expressing respect and admiration and this experience can promote authentic pride. Individuals with high SSS may not have to apply dominant strategies such as threatening others by withholding resources and being aggressive in order to maintain their SSS—which is based on respect and admiration -- and this cognition may mentally predispose the individual to experience authentic pride. Furthermore, this relationship pattern can create a positive loop, because authentic pride displays are socially more accepted so they boost social status (Williams & DeSteno, 2009). In line with this authentic pride can become the underlying affective mechanism of prestige-based status maintenance of high SSS. Moreover, if SSS is maintained by dominance, the underlying mechanism of threatening others may mentally predispose the individual to experience hubristic pride.

On the other hand, we expected that OSS can be relevant as well, regarding pride as pride is related to high status, and high status means privileged access to resources. These resources can be money, education and social institutions (Kafashan, Sparks, Griskevicius, & Barclay, 2014). Furthermore, we expected that OSS will be a more relevant background variable in case of hubristic pride, especially if it is maintained by dominance-based strategies. We expected it is especially true if one has low level of SSS and high level of OSS. It means, that individuals who have abundant resources in terms of high level of education, money, possessions, etc. but not respected or admired by others and have no influence, need to maintain their status in the hierarchy by dominant strategies which mentally predispose the individual to experience that s/he is conceited, stuck-up, namely proud, but in a hubristic way (Cheng et al., 2013, 2010). This can also create a feedback loop, but in this case a negative one, contrasting to the SSS→prestige→authentic pride circle. However, as it was mentioned above, we expected larger effects in the case of SSS than OSS on the two forms of pride. Furthermore, as the two forms of pride are correlated in prior studies (Tracy & Robins, 2007b), so cross-effects between OSS, SSS, status maintenance strategies and facets of pride can emerge.

We conducted four studies to investigate how status is related to pride. In Study 1 we investigated these predictions with a self-reported online questionnaire. Study 2 was a similar self-reported questionnaire study but with a multidimensional measure of OSS. In Study 3 OSS and SSS were manipulated in a 2×2 vignette design and participants were requested to indicate their hypothetical emotions and behaviors in these situations. Study 4 had the same vignette design as Study 3 with only one exception that participants had to evaluate an imagined other person's feelings and behaviors and not their own.

I.3.2. Envy and social status

In case of envy we have some knowledge about what features differentiate between benign and malicious envy (Crusius, Lange, &

Cologne, 2017) it is still somehow contradictory what triggers the most envy. Therefore we propose to take a step back and investigate the decomposition of the status difference between the self and the superior other.

The study by Lin and colleagues (2018) found that posting about experiential purchases on social network sites triggers more envy than material ones. Although, it is important to mention that both material and experiential purchases are indicators of another person's OSS, as they both depend on money, therefore previous studies on envy neglected the other main form of status, namely SSS. In the present research we investigated the differentiated role of OSS and SSS in the generation of envy. We hypothesized that although it is a neglected research area SSS is a more relevant construct, as factors related to our identity may cause the most painful frustration, which is the most fundamental element of envy (DeSteno & Salovey, 1996; Salovey & Rodin, 1984). As envy is the response to a superior other's pride (Lange & Crusius, 2015b), it is reasonable to suppose the similar pattern of SSS in the generation of envy. Furthermore, we included the existing knowledge about the role of deservingness as it may have a modulating effect between status and type of envy (Crusius & Lange, 2017) and we differentiated between benign and malicious envy.

We investigated these predictions in two studies. In Study 5 we investigated these predictions with critical incidence technique and asked participants about their real life envious episodes. In Study 6 status and deservingness were manipulated in a 2×2 vignette design and participants were requested to indicate their hypothetical emotions and behaviors in these controlled situations.

II. Methods and Results

II.1. Part 1: Pride and social status

In the first part of the research we investigated the relationship pattern of the two facets of pride and social status across four studies.

II.1.1. Study 1

In Study 1 we investigated how OSS and SSS is associated with status maintenance strategies and pride in a self-reported questionnaire study. SSS was assessed with the McArthur ladder (Adler et al., 2007) which represented where individuals stand in their relevant social groups regarding respect, admiration and influence. OSS was assessed with level of education and monthly income. SEM analysis was carried out to investigate the relationship pattern of SSS, OSS and pride with the mediation of dominance and prestige. The raw data is available on OSF: <https://osf.io/ebg8a/>.

II.1.1.1. Methods

Participants

A total of 552 Hungarian participants were recruited from topic irrelevant social media groups with more than 10000 members in the present study (488 females), aged between 18 and 76 ($M_{age} = 30.66$ years, $SD_{age} = 10.35$ years). Regarding their level of education, 333 of them had university degree (60.3%), 192 (34.8%) had high school degree, 25 (4.5%) had elementary school degree, and two participants (0.4%) had no elementary degree. Regarding their place of residence, 194 (35.1%) lived in the capital, 70 (12.7 %) lived in county towns, 222 (40.2%) lived in towns, and 66 (12.0%) lived in villages. Respondents were also asked about their ‘average monthly income’. The ‘average monthly income’ for 79 (14.3%) respondents was less than 50.000 HUF, 187 respondents (33.9%) had between 50.001-150.000 HUF, 169 (30.6%) had an ‘average

monthly income' of 150.001-250.000 HUF, 86 (15.6%) had 250.001-500.000 HUF monthly income on average, 21 (3.8%) respondents had more than 500.001 HUF average monthly income and 10 individuals (1.8%) did not indicate their average monthly income.

Measures

Hubristic and Authentic Pride Scale. This measure (Tracy & Robbins, 2007) consisted of seven authentic items (e.g., accomplished, fulfilled; $\alpha = .87$) and seven hubristic pride items (e.g. stuck-up, conceited; $\alpha = .84$). Respondents had to indicate the extent to which they generally felt using a 5-point scale (1 = Not at all; 5 = Extremely). All translated measures in the present research were translated in Hungarian using the protocol of Beaton, Bombardier, Guillemin and Ferraz (2000). Because it was the first Hungarian adaptation of the scale Confirmatory Factor Analysis was conducted (TLI=.969, CFI=.978, RMSEA=.053). The final scale consisted of five items on both subscales. (We eliminated the items “confident”, “like I have self-worth”, “egotistical” and “smug” based on factor loadings and face validity.)

Dominance and Prestige Scale. This questionnaire (Cheng et al., 2010) consisted of ten dominance items and 12 prestige items. Respondents had to indicate their level to which the items described them using a 7-point scale (1 = Not at all; 7 = Very much). Because it was the first Hungarian adaptation of the scale Confirmatory Factor Analysis was conducted (TLI=.963, CFI=.980, RMSEA=.044). The final scale consisted of three items on both subscales. Dominance subscale ($\alpha = .76$) consisted of the following items: “I dislike giving orders. (reversed item)”, “I enjoy having control over others.” and “I enjoy having authority over other people”. Prestige subscale ($\alpha = .80$) consisted of the following items: “Others seek my advice on a variety of matters.”, “I have gained distinction and social prestige among others in the group.” and “I am considered an expert on some matters by others.”.

MacArthur Scale of Subjective Social Status. Subjective social status was measured by a 10-point social ladder (Adler et al., 2000; Ostrove et al., 2000) in which respondents were asked to indicate their position if “1” represented those who are the most disdained in their social groups and “10” represented those who are the most successful, the most admired in the relevant social groups, which can be family, friends, colleagues, etc. According to the original definition of the ladder by Adler et al. (2000) participants were allowed to define their own groups.

Objective social status. Objective social status was assessed with typical socioeconomic status indicators such as educational level (1 = less than elementary school degree; 2 = finished elementary school; 3 = ongoing high school; 4 = finished high school; 5 = ongoing higher education; 6 = finished university) and average monthly income (1 = between 0 and 50.000 HUF ~ 0 and 180 USD; 2 = between 50.001 and 150.000 HUF ~ 181 and 540 USD; 3 = between 150.001 and 250.000 HUF ~ 541 and 900 USD; 4 = between 250.001 and 500.000 HUF ~ 901 and 1800 USD; 5 = above 500.001 HUF ~ 1800 USD) with the categories mentioned above.

Procedure

This study was performed with an online questionnaire system. First, participants were informed about the goals and the content of the study. They were also assured the anonymity of their answers. The first part of questionnaire contained the Hubristic and Authentic Pride Scale, followed by the Dominance and Prestige Scale. In the second part, demographic questions were asked, including the measures of subjective and objective social status. This research was approved by the Research Ethics Committee of Eötvös Loránd University Faculty of Education and Psychology and was carried out in accordance with Declaration of Helsinki. All subjects gave written informed consent.

Statistical analysis

Structural equation modeling (SEM) was implemented to assess the effect of objective and subjective social status on prestige, dominance,

authentic, and hubristic pride. When assessing the model, multiple goodness of fit indices were taken into account (Bentler, 1990; Brown, 2015; Browne & Cudeck, 1993; Hu & Bentler, 1999, Schermelleh-Engel, Moosbrugger, & Müller, 2003). The Comparative Fit Index (CFI; good > .90), the Tucker-Lewis Index (TLI; good > .90) and the root mean square error of approximation (RMSEA; good < .08). We imputed data with regression method (participants were prompted, but not required, to answer any unanswered OSS items; as a result, less than 0.02% of data were missing).

II.1.1.2. Results

According to the correlation results (see Table 1a), authentic pride was relatively strongly and positively related to prestige, and weakly to dominance. Furthermore, authentic pride was relatively strongly related to subjective social status and weakly to objective social status. Prestige was relatively strongly and positively related to subjective social status. This correlation pattern allowed to test whether the link between subjective social status and authentic pride is mediated by prestige.

On the other hand, hubristic pride was positively related to dominance and was weakly and positively related to prestige, and was unrelated to SSS and OSS. This self-reported correlational pattern indicates that OSS plays a minor role in both forms of pride. Descriptive statistics and inter-factor correlations among the measured variables are presented in Table 1a.

Table 1a

Correlations between subjective and objective social status, status maintenance strategies and facets of pride in Study 1

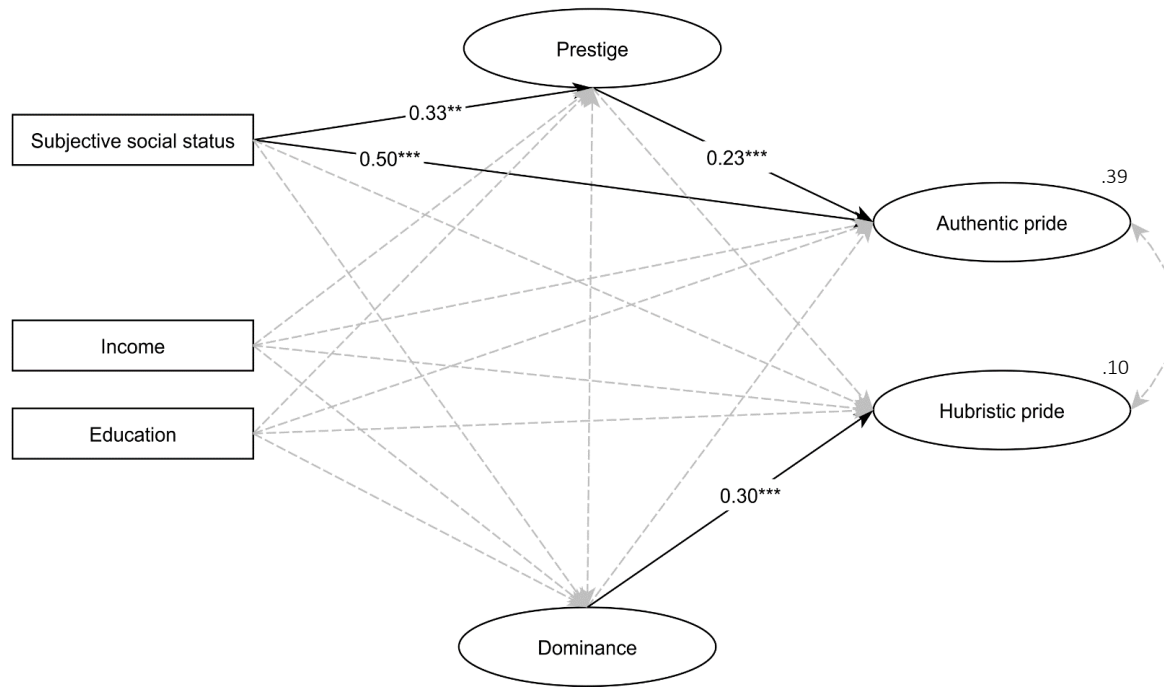
	Range	Mean (<i>SD</i>)	Skewness (<i>SE</i>)	Kurtosis (<i>SE</i>)	α	1	2	3	4	5	6
1. Authentic Pride	1-5	3.46 (.74)	-.64 (.10)	.43 (.21)	.87	—					
2. Hubristic Pride	1-4.14	1.86 (.65)	.75 (.10)	.01 (.21)	.84	.19**	—				
3. Dominance	1-6.30	3.34 (.84)	.28 (.10)	.24 (.21)	.76	.10**	.44**	—			
4. Prestige	2.25-6.30	4.37 (.72)	-.17 (.10)	.01 (.21)	.80	.59**	.16**	.24**	—		
5. Subjective Social Status	1-10	6.56 (1.71)	-.70 (.10)	.19 (.21)	—	.60**	.07	.10*	.55**	—	
6. Education ^a	1-6 ^a	5.34 (.96)	-1.5 (.10)	2.02 (.21)	—	.13**	-.02	-.05	.07	.08*	—
7. Income ^b	1-5 ^b	2.60 (1.04)	.29 (.10)	-.51 (.21)	—	.19**	-.04	.02	.19**	.22**	.30**

Note. *SD* = standard deviation; *SE* = Standard Error ;^a On a scale of 1 = less than elementary school degree; 2 = finished elementary school; 3 = ongoing high school; 4 = finished high school; 5 = ongoing higher education; 6 = finished higher education; ^b On a scale of 1 = between 0 and 50.000 HUF ~ 0 and 180 USD; 2 = between 50.001 and 150.000 HUF ~ 181 and 540 USD; 3 = between 150.001 and 250.000 HUF ~ 541 and 900 USD; 4 = between 250.001 and 500.000 HUF ~ 901 and 1800 USD; 5 = above 500.001 HUF ~ 1800 USD

* $p < .05$; ** $p < .01$

Figure 1 presents the results of the SEM model (TLI = .953, CFI = .967, RMSEA = .065). Results provided support for the proposed model. Specifically, SSS was indirectly and relatively strongly related to authentic pride via prestige. OSS measures (education and income) were neither related to status maintenance (dominance and prestige) nor facets of pride (authentic and hubristic). Furthermore, dominance was moderately related to hubristic pride. Mediation analysis is presented in Table 1b with statistics on the total, direct and indirect effects with 95% bias-corrected bootstrapped confidence intervals.

Figure 1 SEM analysis between subjective and objective social status, status maintenance strategies and facets of pride in Study 1



Note. Standardized regression weights are presented on the arrows. Dashed line means nonsignificant relationship.
 *** $p < .001$.

Table 1b

Standardized estimates of total, direct, and indirect effects with 95% bias-corrected bootstrapped confidence intervals in Study 1

	Total effect		Direct effect		Indirect effect	
	β	95% CI	β	95% CI	β	95% CI
<i>Subjective Social Status</i>						
SSS→Authentic Pride	0.573**	[0.507, 0.63]	0.503**	[0.43, 0.57]	0.07**	[0.045, 0.104]
SSS→Hubristic Pride	0.089	[0.001, 0.167]	0.069	[-0.029, 0.156]	0.02	[-0.019, 0.065]
<i>Objective Social Status</i>						
income→Authentic Pride	0.037	[-0.034, 0.108]	0.029	[-0.037, 0.099]	0.008	[-0.009, 0.029]
education → Authentic Pride	0.066	[-0.008, 0.140]	0.073	[0.006, 0.149]	-0.007	[-0.026, 0.014]
income → Hubristic Pride	-0.059	[-0.148, 0.038]	-0.062	[-0.149, 0.024]	0.003	[-0.026, 0.033]
education→Hubristic Pride	-0.015	[-0.098, 0.065]	-0.021	[-0.095, 0.058]	0.005	[-0.024, 0.036]

Note. Bootstrapped confidence intervals were estimated using maximum likelihood. SSS = Subjective Social Status. OSS = Objective Social Status.

** $p < 0.01$.

II.1.1.3. Discussion

Study 1 provided initial support for our hypotheses. Results of Study 1 supported that SSS was a more relevant construct regarding pride than OSS which confirmed that pride was the outcome affect of the subjective evaluation of success (Tracy & Robins, 2004) in light of the social group's feedback on respect. Furthermore, SSS was related to authentic pride via prestige. When individuals perceive respect, admiration and influence in their relevant social groups it will go hand in hand with the usage of prestige-based status maintenance strategies such as sharing knowledge and skills and being helpful with other members of the group. These experiences are linked to feel pride in an authentic way. On the other hand the usage of dominance-based status maintenance strategies—such as threatening others and being aggressive—can be linked to hubristic pride as the result of the arrogant influence on other members of the group.

These findings confirm the evolutionary approach of pride (Cheng et al., 2010). In the case of hubristic pride, when individuals lack prestige based tools to maintain status they will experience that they are conceited, arrogant and pompous. OSS measures had no significant effects neither on status maintenance strategies nor pride. It means that not financial benefits or possessed university degrees were considered as more important symbols regarding what makes one pride but group members' feedback and evaluation on the given person's respectedness, admiration and influence.

In sum, we supposed that SSS and OSS should be taken into consideration independently in status maintenance and pride because they have differentiated effects. On the other hand results can be distorted by not appropriate and less detailed OSS measures. In Study 2 we aimed to overcome this limitation by measuring OSS with multiple related constructs.

II.1.2. Study 2

In Study 2 we investigated how OSS and SSS is related to status maintenance strategies and pride. Study 2 was a similar self-reported questionnaire study as Study 1, but we aimed to measure OSS with differentiated measures. SEM analysis was carried out to investigate the relationship pattern of OSS and SSS to authentic and hubristic pride with the mediation of status maintenance strategies. The raw data supporting the conclusions of this manuscript will be made available by the authors, without undue reservation, to any qualified researcher.

II.1.2.1. Methods

Participants

A total of 509 Hungarian participants were recruited from topic irrelevant social media groups with more than 10000 members in the present study (370 females, 135 males, 4 missing), aged between 18 and 75 ($M_{age} = 27.34$ years, $SD_{age} = 10.26$ years). Regarding their place of residence, 249 (48.9%) lived in the capital, 91 (17.9%) lived in county towns, 114 (22.4%) lived in towns, and 52 (10.2%) lived in villages, 3 respondents did not indicate their place of residence. Respondents were also asked about their average monthly income ($M_{Hungarian\ income} = 372$ USD as per the Hungarian Central Statistical Office, 2016). The average monthly income for 116 (22.8%) respondents was less than 50.000 HUF, 210 respondents (41.3%) had between 50.001-150.000 HUF dollar, 89 (17.5%) had an ‘average monthly income’ of 150.001-250.000 HUF, 64 (12.6%) had 250.001-500.000 HUF monthly income on average, 24 (4.7%) respondents had more than 1500.001 HUF average monthly income and 6 individuals (1.8%) did not indicate their average monthly income.

Measures, procedure and statistical analysis

In this study the same scales were used as in Study 1: Hubristic and Authentic Pride Scale (Tracy & Robins, 2007; $\alpha_{authentic} = .86$, $\alpha_{hubristic} = .84$)

in a shortened form. SSS was measured by the MacArthur Scale of Subjective Social Status (Adler et al., 2010; Ostrove et al., 2000).

OSS was measured with different status related constructs. Respondents were asked about their 'average monthly income' with the above mentioned categories. Furthermore, financial wealth was asked on a 6 point Likert scale (1 = I live in deliberately good financial circumstances; 2 = I live without financial problems; 3 = I economize but live well; 4 = I almost can live without financial problems; 5 = I have financial problems from month to month; 6 = I live in deprivation). Occupation was coded into two categories, white and blue collar workers. Moreover, respondents were asked about such status related possessions as mobile phone, car and house. They had to indicate the value of their phone and car on a 10 point scale where 1 meant the worst and oldest types of phones and cars and 10 indicated the best, latest and most modern phones or cars. It was also illustrated with pictures for better understanding. Respondents were asked about if they live in their own house or not. Regarding the procedure and statistical analysis of this study it was the same as in Study 1. We data with regression method (participants were prompted, but not required to answer any unanswered OSS items; as a result, less than 0.02% of data were missing).

II.1.2.2. Results

According to the correlation results, authentic pride was relatively strongly and positively related to prestige and SSS and weakly and positively to some OSS measures (e.g., income, occupation and car). Prestige was strongly and positively related to SSS. Hubristic pride was relatively strongly and positively related to dominance. Descriptive statistics and inter-factor correlations among the measured variables are presented in Table 2.

Table 2a

Correlations between subjective and objective social status, status maintenance strategies and facets of pride in Study 2

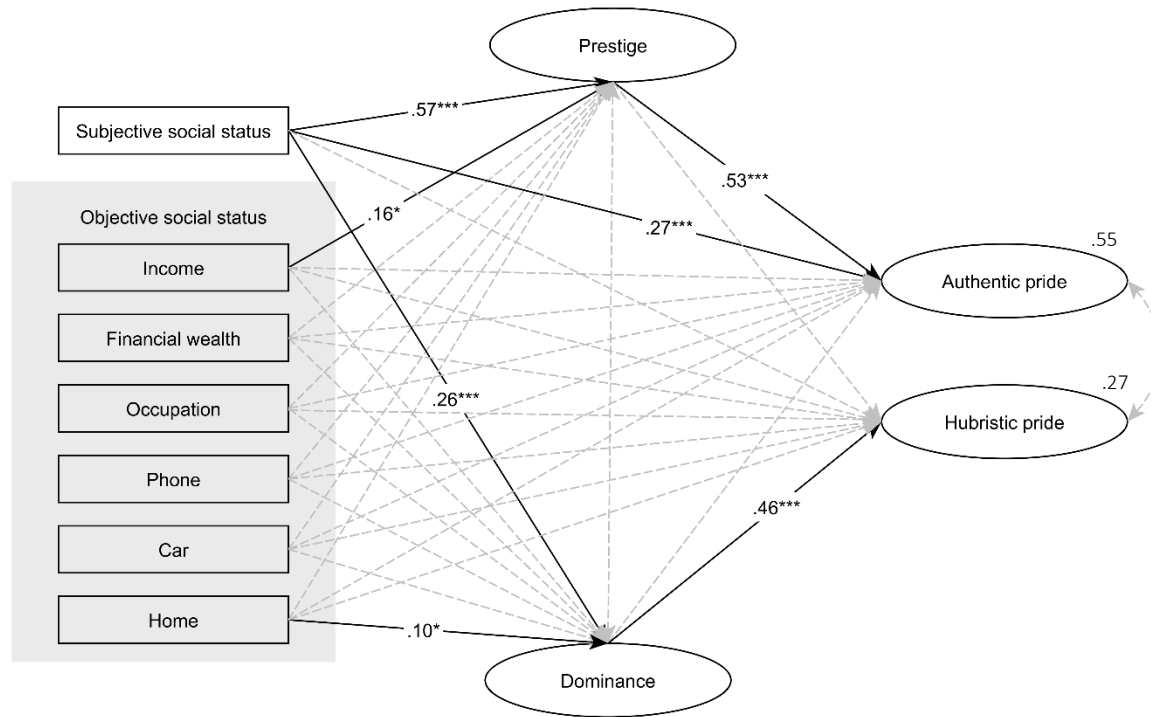
	Range	Mean (SD)	Skewness (SE)	Kurtosis (SE)	α	1	2	3	4	5	6	7	8	9	10
1. Authentic pride	1-5	3.01 (0.91)	-0.08 (0.11)	-0.56 (0.22)	.89	—									
2. Hubristic pride	1-5	1.61 (0.71)	1.52 (0.11)	2.19 (0.22)	.84	.12**	—								
3. Dominance	1-5	2.70 (0.97)	0.39 (0.11)	-0.42 (0.22)	.75	.16**	.41**	—							
4. Prestige	1-5	3.11 (0.83)	-.13 (0.11)	-.46 (0.22)	.70	.52**	.23**	.33**	—						
5. Subjective social status	1-10	6.42 (1.75)	-0.68 (0.11)	0.54 (0.22)	—	.56**	.11*	.22**	.50**	—					
6. Income ^a	1-5	2.34 (1.11)	0.70 (0.11)	-0.26 (0.22)	—	.25**	.07	.03	.20**	.12**	—				
7. Financial wealth	1-7	3.90 (2.35)	0.45 (0.11)	-1.61 (0.22)	—	.14**	-.03	-.04	.051	.12*	.15**	—			
8. Occupation ^b	0, 1	—	—	—	—	.29**	.07	-.13	.23**	.20**	.02	-.02	—		
9. Phone ^c	1-10	7.33 (1.66)	-0.56 (0.11)	0.17 (0.22)	—	.18**	.12*	.11*	.19**	.24**	.12**	.10*	-.02	—	
10. Car ^c	1-10	5.66 (1.76)	0.05 (0.21)	-0.18 (0.42)	—	.26**	-.05	.02	.28**	.32**	.31**	.16	.30*	.30**	—
11. Home ^d	0, 1	—	—	—	—	.12**	-.06	-.07	.05	.07	.02	-.01	.12	-.01	.02

Note. SD = standard deviation; SE = Standard Error; ^a On a scale of 1 = between 0 and 50.000 HUF ~ 0 and 180 USD; 2 = between 50.001 and 150.000 HUF ~ 181 and 540 USD; 3 = between 150.001 and 250.000 HUF ~ 541 and 900 USD; 4 = between 250.001 and 500.000 HUF ~ 901 and 1800 USD; 5 = above 500.001 HUF ~ 1800 USD; ^b 0 indicated blue collar and 1 indicated white collar; ^c On a scale of 1 = the worst and oldest type and 10 the best, the latest and most modern type; ^d 0 indicated no possession and 1 indicated possession

* $p < .05$; ** $p < .01$

This correlation pattern allowed to test the hypothesized SEM model. Figure 2 presents the result of SEM analysis (TLI = .905, CFI = .937, RMSEA = .053). Because there were weak correlations among OSS measures, the variables were tested independently in the model, not as an aggregated or latent variable. According to the model, SSS was directly and positively related to prestige and to authentic pride and indirectly to authentic pride via prestige. Furthermore, SSS was directly and moderately related to dominance and to hubristic pride via dominance. Income was negligible weakly related to prestige, and home was negligible weakly related to dominance. All in all, OSS was unrelated to either authentic or hubristic pride and status maintenance strategies as well. Furthermore, dominance was directly and relatively strongly related to hubristic pride. Mediation analysis is presented in Table 2b with statistics on the total, direct and indirect effects with 95% bias-corrected bootstrapped confidence intervals.

Figure 2 SEM analysis between subjective and objective social status, status maintenance strategies and facets of pride in Study 2



Note. Standardized regression weights are presented on the arrows. Dashed line means nonsignificant relationship. $*** p < .001$.

Table 2b

Standardized estimates of total, direct, and indirect effects with 95% bias-corrected bootstrapped confidence intervals in Study 2

	Total effect		Direct effect		Indirect effect	
	β	95% CI	β	95% CI	β	95% CI
<i>Subjective Social Status</i>						
SSS→Authentic Pride	0.544**	[0.463, 0.614]	0.271**	[0.135, 0.398]	0.273**	[0.182, 0.416]
SSS→Hubristic Pride	0.116*	[0.014, 0.219]	-0.068	[-0.196, 0.054]	0.018*	[0.087, 0.288]
<i>Objective Social Status</i>						
income→Authentic Pride	0.102*	[0.004, 0.201]	0.018	[-0.074, 0.11]	0.084	[0.034, 0.155]
financial wealth→Authentic Pride	0.062	[-0.018, 0.142]	0.07	[-0.006, 0.151]	-0.009	[-0.058, 0.038]
occupation→Authentic Pride	0.119*	[0.037, 0.202]	0.122*	[0.047, 0.204]	-0.003	[-0.058, 0.048]
phone→Authentic Pride	0.032	[-0.051, 0.104]	-0.007	[-0.087, 0.062]	0.039	[-0.012, 0.098]
car→Authentic Pride	0.063	[-0.021, 0.145]	0.061	[0-0.029, 0.137]	0.002	[-0.047, 0.054]
home→Authentic Pride	-0.031	[-0.083, 0.014]	-0.047	[-0.120, 0.018]	-0.031	[-0.083, 0.014]
income →Hubristic Pride	0.063	[-0.055, 0.172]	0.03	[-0.083, 0.138]	0.033	[-0.029, 0.098]
financial wealth→Hubristic Pride	-0.067	[-0.153, 0.036]	-0.032	[-0.144, 0.061]	-0.035	[-0.089, 0.014]
occupation→Hubristic Pride	0.008	[-0.097, 0.116]	0.036	[-0.056, 0.137]	-0.028	[-0.085, 0.022]
phone→Hubristic Pride	0.096*	[0.012, 0.178]	0.054	[-0.026, 0.136]	0.042	[-0.003, 0.104]
car→Hubristic Pride	-0.04	[-0.146, 0.062]	-0.044	[-0.141, 0.047]	0.004	[-0.059, 0.063]
home→Hubristic Pride	0.048	[-0.059, 0.141]	0.003	[-0.077, 0.094]	0.045	[-0.008, 0.105]

Note. Bootstrapped confidence intervals were estimated using maximum likelihood. SSS = Subjective Social Status. OSS = Objective Social Status.

II.1.2.3. Discussion

Study 2 gave further evidence to the hypothesised relationship pattern. According to the results, SSS was a more relevant construct regarding status maintenance strategies and pride. The relationship between SSS and authentic pride was mediated by prestige which indicates that perceived respect, admiration and influence in relevant social groups go hand in hand with sharing knowledge and skills and make possible to be proud in an authentic way. SSS was also related to hubristic pride with the mediation of dominance. It indicates that SSS can be the source of both sort of status maintenance strategies in which the prestige plays the main role and the dominance has a secondary role. For individuals with high SSS prestige can provide the basis of maintenance of high status, but sometimes it might be relevant or useful to use dominance-based status maintenance strategies, as well. These results can shed light on the proportion of these strategies in which prestige has the main role, but dominance cannot be negligible.

Surprisingly, OSS measures had no significant effects or very small effects on both status maintenance strategies and facets of pride. Suggestion from Study 1, that not possessions and money have to be taken into consideration to feel ourselves proud get evidence. Group members' subjective evaluation appeared to have a much more important role regarding pride.

Study 2 confirmed that SSS and OSS have to be taken into account differently considering status maintenance strategies and pride. Study 1 and 2 were self-reported, cross-sectional and correlational studies in which status was not systematically manipulated which can be one of the limitations of these works. Therefore, in Study 3 we intended to manipulate SSS and OSS and investigate their differentiated effects on status maintenance strategies and pride in a situation evaluation task.

II.1.3. Study 3

In Study 3 our main goal was to investigate systematically how SSS and OSS is related to status maintenance strategies and facets of pride in a vignette study for reducing the potential bias caused by the self-report measure of OSS. For this purpose OSS and SSS were manipulated in a 2×2 vignette design. Participants were asked to indicate how proud they would feel and how they would behave to maintain their status. The raw data supporting the conclusions of this manuscript will be made available by the authors, without undue reservation, to any qualified researcher.

II.1.3.1. Methods

Participants

A total of 345 Hungarian participants were recruited from topic irrelevant social media groups with more than 10000 members in the present study, 69 (20 %) of them were dropped out from the analysis because they reported that it was very difficult or rather difficult for them to imagine the described vignette situation. The final sample consisted of 276 participants (222 females, four missing) aged between 18 and 70 ($M_{age} = 28.78$ years, $SD_{age} = 11.99$ years). Regarding their place of residence, 109 (39.5%) lived in the capital, 33 (12.0%) lived in county towns, 95 (34.4%) lived in towns, and 35 (12.7%) lived in villages, 4 respondents did not indicate their place of residence.

Respondents were asked about their financial wealth. 66 participants (23.9%) reported that s/he lives in without financial problems, 134 (48.6%) reported that s/he economizes but live well, 37 (13.4%) reported that s/he can almost live without financial problems, 13 (4.7%) reported that s/he has financial problems from month to month, five participants (1.8%) reported that s/he lives in deprivation and 17 respondents did not answer this question.

Measures and procedure and statistical analysis

A vignette study was carried out to investigate the relationship pattern between the two forms of social status, status maintenance

strategies, and facets of pride. SSS and OSS were manipulated (high or low) in a 2×2 design across the vignettes. First, respondents were asked to imagine that they are in the situation characterized by the vignette. They were instructed to imagine that they hold a presentation at a company and report their success which was 20% higher than the expected key performance indicators. Objective social status was manipulated along level of education, financial situation, phone, type of home, and clothes. *High objective social status* was characterized by a degree from a university with high reputation, having the latest iPhone, fashionable clothes, an own flat and living without financial problems. *Low objective social status* was characterized by having vocational school degree, low-end cellphone, non-fashionable clothes, renting a small flat with acquaintances, and having some financial problems. In *high subjective social status* conditions the respondents had to imagine that they were admired and respected by colleagues and in *low subjective social status* conditions they were not admired and respected by colleagues. Appendix 1 contains the full text of the vignettes.

The research was performed with an online questionnaire system and participants were randomly assigned into one of four conditions. First, they were informed about the goals and the content of the study. All subjects gave written informed consent in accordance with the Declaration of Helsinki. They were also assured the anonymity of their answers. Afterwards participants were asked to answer a three-item version of the the Dominance and Prestige Scale (Cheng et al., 2010; $\alpha_{\text{prestige}} = .78$, $\alpha_{\text{dominance}} = .55$) and a shortened version of the Hubristic and Authentic Pride Scale (Tracy & Robbins, 2007; $\alpha_{\text{authentic}} = .91$, $\alpha_{\text{hubristic}} = .87$). Finally, participants responded to demographic questions.

Regarding the statistical analysis of this study it was the same as in Study 1 and 2 except for the conditions in dummy variables. Regarding both OSS and SSS low levels were coded as 0, and high levels were coded as 1.

II.1.3.2. Results

Descriptive statistics of the measured scales in the four conditions (objective status – high/low, subjective social status – high/low) are presented in Table 3. Both pride measures had the highest scores when both OSS and SSS were high. Prestige were higher when OSS was low and SSS was high (compared to high OSS-low SSS and low OSS-low SSS). Dominance were higher when OSS was high and SSS was low (compared to low OSS-high SSS and low OSS-low SSS). These results implicate that high SSS is more relevant regarding authentic pride and prestige and OSS is more relevant regarding hubristic pride and dominance.

Two-way ANOVA was conducted to compare the main effects of SSS and OSS and the interaction effect between SSS and OSS on authentic and hubristic pride. Regarding authentic pride, SSS had a significant main effect [$F(1, 272)=28.56, p<.001$], indicating a significant difference between low SSS ($M_{low}=3.27, SD_{low}=1.05$) and high SSS conditions ($M_{high}=3.80, SD_{high}=0.84$). OSS had a significant main effect on authentic pride as well [$F(1, 272)=44.31, p<.001$], indicating a significant difference between low OSS ($M_{low}=3.21, SD_{low}=1.01$) and high OSS conditions ($M_{high}=3.88, SD_{high}=0.82$). The interaction effect was not significant [$F(1, 272)=2.52, p=.113$]. Regarding hubristic pride SSS did not have a significant main effect [$F(1, 272)=0.418, p=.518$]. In contrast, OSS has a significant main effect on hubristic pride [$F(1, 272)=41.60, p<.001$], indicating a significant difference between low OSS ($M_{low}=1.21, SD_{low}=0.35$) and high OSS conditions ($M_{high}=1.70, SD_{high}=0.76$). The interaction effect was not significant [$F(1, 272)=0.002, p=.967$].

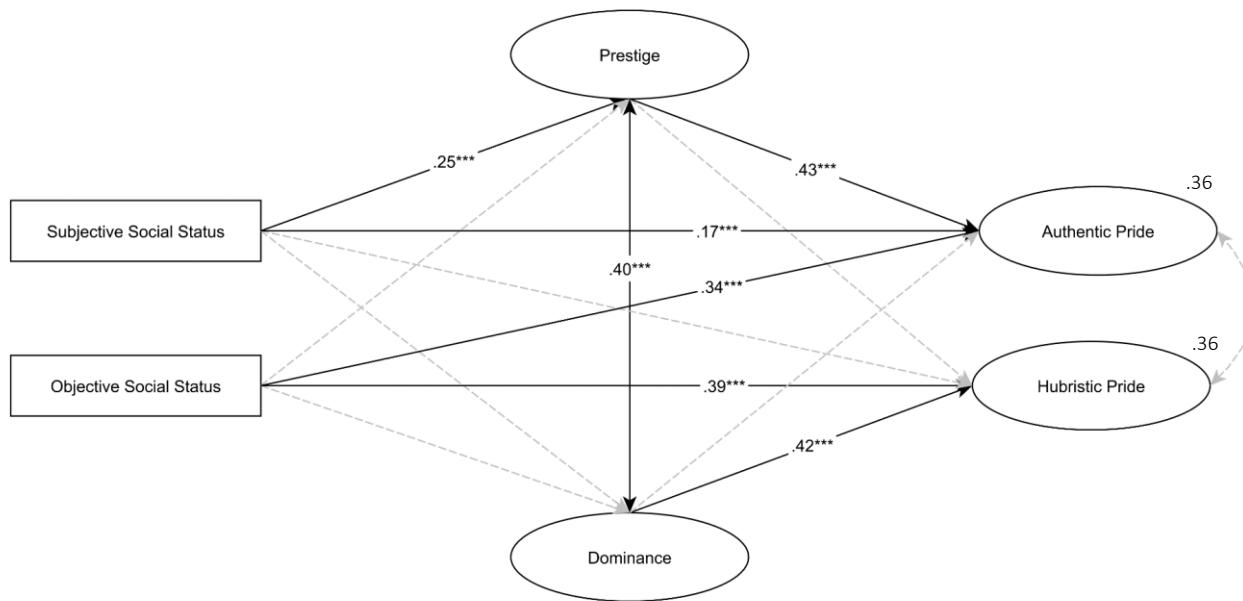
Table 3a
Descriptive statistics by groups for authentic pride, hubristic pride, prestige and dominance in Study 3

		Scale	Range	Mean	SD
High objective social status	High subjective social status	a. Authentic Pride	2.40-5	4.09	.67
		b. Hubristic Pride	1-5	1.69	.81
		c. Prestige	1-5	3.01	.82
		d. Dominance	1.33-5	2.57	.78
	Low subjective social status	e. Authentic Pride	1.60-5	3.69	.89
		f. Hubristic Pride	1-3.80	1.65	.73
		g. Prestige	1-4.7	2.79	.82
		h. Dominance	1.33-5	2.68	.83
Low objective social status	High subjective social status	i. Authentic Pride	1-5	3.56	.89
		j. Hubristic Pride	1-2.60	1.23	.36
		k. Prestige	1-4.7	3.07	.81
		l. Dominance	1.33-4.7	2.48	.80
	Low subjective social status	m. Authentic Pride	1-5	2.82	.99
		n. Hubristic Pride	1.3	1.18	.39
		o. Prestige	1-5	2.48	.95
		p. Dominance	1.33-4.33	2.48	.80

Note. All variables were measured on a 5-point Likert scale

Figure 3 presents the results of the SEM analysis (TLI = .946, CFI = .957, RMSEA = .055). Mediation analysis is presented in Table 3b with statistics on the total, direct and indirect effects with 95% bias-corrected bootstrapped confidence intervals. Subjective social status was directly and positively related to prestige and indirectly and positively to authentic pride via prestige. Objective social status was directly related to authentic and hubristic pride. Dominance was related to hubristic pride.

Figure 3 SEM analysis between subjective and objective social status, status maintenance strategies and facets of pride in Study 3



Note. Standardized regression weights are presented on the arrows. Dashed line means nonsignificant relationship.

*** $p < .001$. Levels of SSS and OSS are coded as 0-low, 1-high.

Table 3b

Standardized estimates of total, direct, and indirect effects with 95% bias-corrected bootstrapped confidence intervals in Study 3

	Total effect		Direct effect		Indirect effect	
	β	95% CI	β	95% CI	β	95% CI
<i>Subjective Social Status</i>						
SSS→Authentic Pride	0.288**	[0.182, 0.393]	0.171**	[0.057, 0.286]	0.117 **	[0.055, 0.206]
SSS→Hubristic Pride	0.044	[-0.083, 0.156]	0.052	[-0.061, 0.156]	-0.008	[-0.09, 0.069]
<i>Objective Social Status</i>						
OSS→Authentic Pride	0.369**	[0.276, 0.479]	0.343**	[0.251, 0.453]	0.026	[-0.03, 0.087]
OSS→Hubristic Pride	0.386**	[0.291, 0.483]	0.338**	[0.239, 0.443]	0.048	[-0.015, 0.115]

Note. Bootstrapped confidence intervals were estimated using maximum likelihood. SSS = Subjective Social Status. OSS = Objective Social Status.

* $p < 0.05$.

** $p < 0.01$.

II.1.3.3. Discussion

Study 3 gave new aspects to the hypothesized relationship pattern. SSS was related to authentic pride via prestige as in Study 1 and 2. Moreover, in Study 3 also OSS had significant relationship to authentic and to hubristic pride as well. Regarding authentic pride, it means that if the individual perceives (1) respect, admiration and influence in relevant social groups and also (2) has money, lives well, possesses a good phone and own home enables to feel accomplishment and confidence. On the other hand, in this imagined situation SSS was not related to hubristic pride. It means that when individuals imagine themselves as having a lot of money and possessions but others do not respect them they report that they would feel arrogant and conceited. Dominance group means in high OSS-high SSS and high OSS-low SSS confirm this.

Study 3 also confirmed that SSS and OSS have different effect on status maintenance strategies and pride as well. Although Study 3 was also a self-report measure which allows positive self-serving bias. It may bias results for the following reasons: (1) individuals do not tend to confess that they are dominant or hubristic (low group means may confirm this statement) and (2) although Study 3 was a hypothetical situation, financial questions can be unpleasant to answer which can undermine honest answers (i.e. respondents would not like to see themselves as materialists). For this reason, in Study 4 we asked participants to rate a hypothetical other person in the same situation in order to avoid these negative effects of self-serving bias.

II.1.4. Study 4

In this vignette study our main goal was reducing self-serving biases in the assessment of the relationship pattern of SSS, OSS, prestige, dominance, authentic and hubristic pride within a vignette study highly similar to the previous one. The only difference was related to the perspective of responding. In the previous study, participants imagined themselves in the role of the successful person, in the present case they were requested to evaluate someone else's emotions and supposed behavior. For this purpose, we used the 2×2 research design of Study 2 in which SSS and OSS were manipulated with this only one modification. The raw data supporting the conclusions of this manuscript will be made available by the authors, without undue reservation, to any qualified researcher.

II.1.4.1. Methods

Participants

A total of 497 Hungarian participants were recruited from topic irrelevant social media groups with more than 10000 members in the present study (379 females), aged between 18 and 64 ($M_{\text{age}} = 28.25$ years, $SD_{\text{age}} = 9.19$ years). Regarding their financial situation 128 respondents (25.8%) indicated that he/she lives without financial problems, 229 respondents (46.1%) indicated that he/she economize but live well, 88 respondents (17.7%) indicated that he/she almost can live without financial problems, 23 respondents (4.6%) indicated that he/she has financial problems from month to month, 5 respondents (0.1%) indicated that lives with deprivation and 24 respondents (4.8%) had given no answer.

Measures and procedure and statistical analysis

A vignette study was carried out to investigate the relationship pattern between the two forms of social status, status maintenance strategies, and facets of pride. SSS and OSS were manipulated (high or low) in a 2×2 design across the vignettes. The storyline was the same as in Study 3, but in the present study participants were requested to evaluate

someone else's emotions and supposed behavior. Respondents read a short story about "Gabi" (which is a gender-neutral name in Hungarian). Gabi's OSS and SSS were manipulated in a same way as in Study 3. Regarding the procedure and statistical analysis of this study, it was the same as in Study 3. ($\alpha_{\text{prestige}} = .88$, $\alpha_{\text{dominance}} = .77$, $\alpha_{\text{authentic}} = .84$, $\alpha_{\text{hubristic}} = .91$).

II.1.4.2. Results

Descriptive statistics of the measured scales in the four conditions (objective status – high/low, subjective social status – high/low) are presented in Table 4. Prestige scores were higher than dominance scores when subjective social status was high regardless of the level of objective social status. Consequently, dominance scores were higher than prestige scores when subjective social status was low regardless of the level of objective social status.

Two-way ANOVA was conducted to compare the main effects of SSS and OSS and the interaction effect between SSS and OSS on authentic and hubristic pride. Regarding authentic pride, SSS had a significant main effect [$F(1, 493)=10.35$, $p<.01$], indicating a significant difference between low SSS ($M_{\text{low}}=3.80$, $SD_{\text{low}}=0.94$) and high SSS conditions ($M_{\text{high}}=4.05$, $SD_{\text{high}}=0.91$). OSS had a significant main effect on authentic pride as well [$F(1, 493)=64.67$, $p<.001$], indicating a significant difference between low OSS ($M_{\text{low}}=3.62$, $SD_{\text{low}}=0.92$) and high OSS conditions ($M_{\text{high}}=4.24$, $SD_{\text{high}}=0.83$). The interaction effect was not significant [$F(1, 493)=2.88$, $p=.09$]. Regarding hubristic pride SSS had a significant main effect [$F(1, 493)=7.81$, $p<.01$], indicating a significant difference between low SSS ($M_{\text{low}}=1.85$, $SD_{\text{low}}=1.04$) and high SSS conditions ($M_{\text{high}}=1.65$, $SD_{\text{high}}=0.86$), but this difference was very small. OSS also had a significant main effect on hubristic pride [$F(1,493)=216.15$, $p<.001$], indicating a significant difference between low OSS ($M_{\text{low}}=1.23$, $SD_{\text{low}}=0.45$) and high OSS conditions ($M_{\text{high}}=2.27$, $SD_{\text{high}}=1.04$). The interaction effect was not significant [$F(1, 493)=3.58$, $p=0.06$].

Table 4a
Descriptive statistics by groups for authentic pride, hubristic pride, prestige and dominance in Study 4

		Scale	Range	Mean	SD
High objective social status	High subjective social status	a. Authentic Pride	1-5	4.30	.85
		b. Hubristic Pride	1-5	2.11	.96
		c. Prestige	1.33-5	3.41	.82
		d. Dominance	1-3.67	2.54	.65
	Low subjective social status	e. Authentic Pride	1-5	4.18	.82
		f. Hubristic Pride	1-5	1.19	.39
		g. Prestige	1-4.67	1.71	.74
		h. Dominance	1-4.33	2.66	.76
Low objective social status	High subjective social status	i. Authentic Pride	1.67-5	3.80	.91
		j. Hubristic Pride	1-3.33	1.19	.39
		k. Prestige	1-5	3.50	.85
		l. Dominance	1-4	2.12	.55
	Low subjective social status	m. Authentic Pride	1.33-5	3.42	.91
		n. Hubristic Pride	1-3.33	1.24	.51
		o. Prestige	1-4.33	1.79	.80
		p. Dominance	1-3.67	2.19	.58

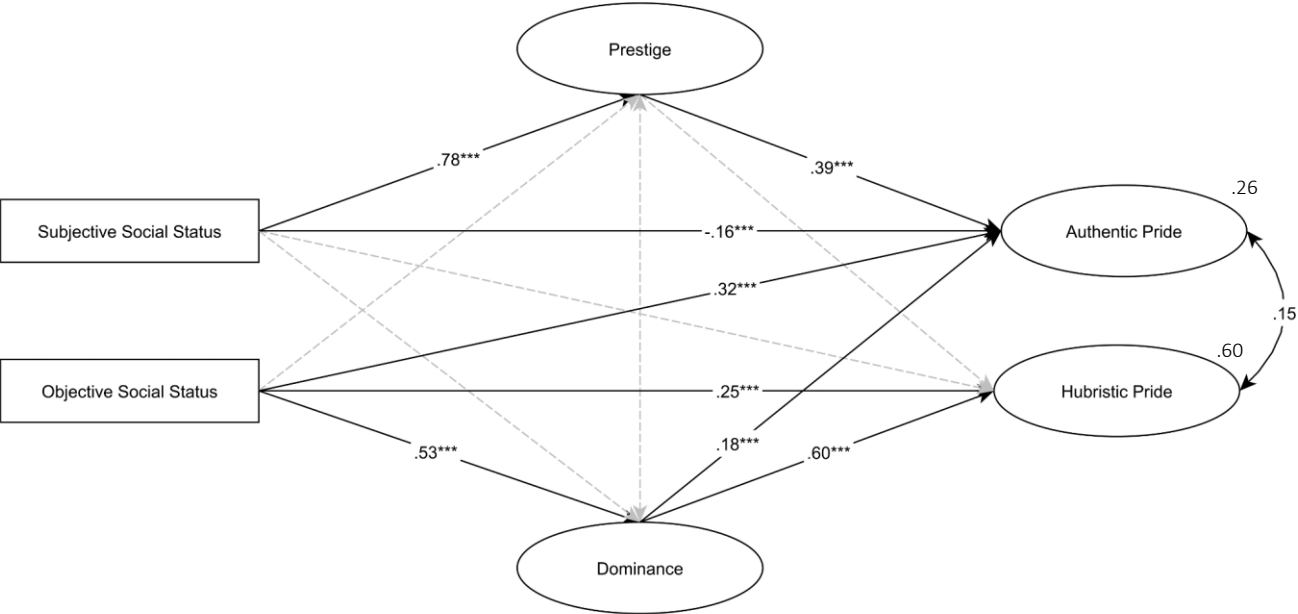
Note. All variables were measured on a 5-point Likert scale

Figure 4 presents the results of the SEM analysis (TLI = .953, CFI = .967, RMSEA = .065). Mediation analysis is presented in Table 4b with statistics on the total, direct and indirect effects with 95% bias-corrected bootstrapped confidence intervals. SSS was indirectly and strongly related to authentic pride via prestige. SSS was also directly related to authentic pride with a small but negative regression weight which is caused by a suppression effect, when the indirect effect is so strong that it overwhelms the direct effect (MacKinnon, Krull, & Lockwood, 2000; Paulhaus, Robins, Trzesniewski, & Tracy, 2004). Sobel test was used to evaluate the significance of suppressor effect ($z_s = 4.49$, p

< .0001). SSS was indirectly related to hubristic pride via prestige but with a negligible small negative regression weight.

OSS was directly related to authentic pride and to hubristic pride. OSS was also indirectly related to hubristic pride via dominance. This mediational relationship pattern was justified only in this study and coefficients were relatively strong, furthermore an unexpected positive association emerged between dominance and authentic pride but with a small coefficient.

Figure 4 SEM analysis between subjective and objective social status, status maintenance strategies and facets of pride in Study 4



Note. Standardized regression weights are presented on the arrows. Dashed line means nonsignificant relationship.

*** $p < .001$. Levels of SSS and OSS are coded as 0-low, 1-high.

Table 4b

Standardized estimates of total, direct, and indirect effects with 95% bias-corrected bootstrapped confidence intervals in Study 4

	Total effect		Direct effect		Indirect effect	
	β	95% CI	β	95% CI	β	95% CI
<i>Subjective Social Status</i>						
SSS→Authentic Pride	0.147**	[0.065, 0.241]	-0.156	[-0.325, 0.035]	0.303**	[0.153, 0.452]
SSS→Hubristic Pride	-0.112*	[-0.182, -0.032]	0.014	[-0.104, 0.153]	-0.126	[-0.262, -0.013]
<i>Objective Social Status</i>						
OSS→Authentic Pride	0.393**	[0.308, 0.479]	0.317**	[0.213, 0.431]	0.077*	[0.005, 0.148]
OSS→Hubristic Pride	0.57**	[0.517, 0.627]	0.245**	[0.161, 0.332]	0.325**	[0.257, 0.401]

Note. Bootstrapped confidence intervals were estimated using maximum likelihood. SSS = Subjective Social Status. OSS = Objective Social Status.

* $p < 0.05$.

** $p < 0.01$.

II.1.4.3. Discussion

Study 4 provided new insights into the relationship pattern of the different aspects of status, status maintenance and pride. SSS was related to authentic pride via prestige as in Study 1, 2 and 3. OSS was directly related to both authentic and hubristic pride as in Study 3, but in Study 4 OSS was indirectly and strongly related to hubristic pride via dominance. It means that in the evaluation of another person, participants tend to use different aspects of status in contrast to when they are requested to evaluate themselves. It appears that in other's evaluation different manifestations of OSS can get more emphasis regarding status maintenance and pride. It is especially true regarding the links between OSS → dominance → hubristic pride path. With other words, when this imagined person had high OSS (lot of money and possessions) with low SSS (lack of respect and admiration from the relevant social group members) this person was perceived to use dominant status maintenance strategies and to experience hubristic pride.

We suppose that the stronger presence of OSS can be related to the reduced effect of self-serving biases. Furthermore, in the present experimental manipulation, participants could rely their decisions on visible cues that they can see on other persons (material goods, quality of cellphone, clothes) that people use for social categorization frequently but which might be more unnoticed if individuals evaluate themselves. In the latter case one might put more emphasis on the internal experiences, feelings and thoughts that are just partly accessible in the case of other persons. These results will be further detailed in the general discussion in light of the results of Study 3.

In sum, Study 4 also confirmed that it is worth to separate the effects of SSS and OSS regarding prestige, dominance, authentic and hubristic pride. Furthermore, this study provided empirical evidence to a new perspective in pride research with changing the evaluative perspective which can reduce self-serving biases and provide a detailed picture on the OSS, dominance and hubristic pride.

II.2. Part 2: Envy and social status

In the second part of the research we investigated the relationship pattern of the two types of envy and social status in two studies.

II.2.1. Study 5

In Study 5 we investigated the effect of social status on envy by asking participants to recall real-life situations. We also tested the role of deservingness, as this is the primary appraisal dimension that differentiates between benign and malicious envy (Crusius & Lange, 2014; Van de Ven et al., 2012). In the light of previous research (Bolló, Bóthe, Tóth-Király, & Orosz, 2018; Lin et al., 2018), we predicted that benign envy would be higher when SSS was deserved than when it was undeserved and than when OSS was deserved or undeserved. Moreover, we predicted that malicious envy would be higher when SSS was undeserved than when it was deserved and than when OSS was deserved or undeserved.

II.2.1.1. Methods

Participants

A total of 399 Hungarian participants were recruited from topic-irrelevant social media groups with more than 10,000 members. Of these, 345 were female and all were aged between 18 and 65 ($M_{\text{age}} = 32.41$ years, $SD_{\text{age}} = 11.69$ years). As far as their level of education was concerned, 305 of them had a university degree (76.4%), 88 (22.1%) had finished high school, and 6 (1.5%) had finished elementary school. A total of 143 (35.8%) lived in Budapest, 193 (48.4%) lived in towns, and 63 (15.8%) lived in small towns or villages.

Materials and Procedure

Participants first gave their informed written consent in accordance with the Declaration of Helsinki by ticking a box before taking part in the online study. Participants were taken straight to the end of the survey if they did not give this consent. The study was approved by the Research

Ethics Committee of Eötvös Loránd University's Faculty of Education and Psychology. Participants were then randomly assigned to one of two conditions, OSS or SSS.

In the OSS condition participants were asked to think of a friend, colleague or acquaintance who has better material circumstances than they do (e. g. has more money, has more financial security, has a nicer home or has a better car). Participants were asked to answer the following questions in writing: "How long have you known each other?", "How did you meet?", "What is your relationship with this person like? and "Name something this person has which you want more of".

In the SSS condition participants were asked to think of a friend, colleague or acquaintance who they deem to have more respect, admiration and influence in the eyes of others. They were then asked to write responses to the same questions as those given to the OSS group.

The participants were then asked to complete the BeMaS Scale (Lange & Crusius, 2015a), which assesses levels of benign and malicious envy. Although the BeMaS is designed to measure dispositional envy, in this study it was adapted to measure envy of a particular person. The scale consists of ten items, a benign subscale of five items (e. g. "If I notice that this other person is better than me, I try to improve."; $\alpha = .766$) and a malicious subscale of five items (e. g. "I want this other person to lose his/her advantage"; $\alpha = .861$). Participants were asked to describe their envious feelings towards this previously identified superior other on a scale from 1 (does not apply at all) to 6 (applies very much). Afterwards, participants were asked to indicate whether they perceived the identified superior other's advantage as deserved or undeserved. The final questions elicited demographic information. All materials are available here: <https://osf.io/7u3y4/> or Appendix 2 contains the full design of the studies.

Data analysis

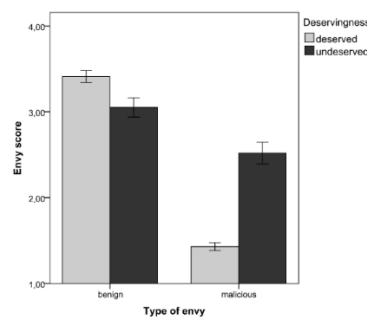
The effects of status and deservingness (as a quasi-experimental variable) on envy were analyzed using the Generalized Linear Mixed-effect Model (GLMM, IBM SPSS 22). In the model the fixed effects included status (OSS vs. SSS), deservingness (undeserved vs. deserved)

and type of envy (benign vs. malicious), and each participant's ID was included as a random factor. All possible two-way and three-way interactions of the fixed factors were tested. Statistical tests were two-tailed, the α value was set at 0.05. Sequential Sidak correction was applied in all post-hoc pairwise comparisons. All statistics were performed using IBM SPSS Statistics 21.

II.2.1.2. Results

There was no significant difference between the two conditions (OSS and SSS) regarding gender, age, place of residence and educational level (all p -values $>.05$). The GLMM analysis showed that status had a significant main effect on envy, $F(1, 791) = 4.51, p = .03$, indicating higher envy ratings for SSS than OSS. Furthermore, there was significant interaction (Figure 5) between deservingness and type of envy, $F(1,790) = 85.422, p < .001$. Pairwise comparison revealed that benign envy was more likely if the superior other was perceived to have a deserved advantage (than if it was deemed to be undeserved), $t(790) = 2.930, p = .003, 95\% \text{ CI } (0.116; 0.586)$ and malicious envy was more likely if the superior other was perceived to have an undeserved advantage (than if it was deemed to be deserved) $t(790) = 9.43, p < .001, 95\% \text{ CI } (-1.37; -0.89)$.

Figure 5 The interaction between deservingness and type of envy in Study 5



Note. Error bars represent one standard error of the mean.

II.2.1.3. Discussion

Study 5 demonstrated that envy is more intense when the superior other is better off socially than when he/she has more material possessions. One potential explanation may be that comparisons in relation to SSS have a higher degree of self-relevance to individuals than material ones (Lin 2018, Lin & Utz 2015). In other words, individuals become more envious when they feel that they have less respect and influence among certain people than a superior other does. Individuals are less envious of a superior other's money, car, etc., and previous research has demonstrated that individuals overestimate the importance of these possessions (Bolló et al., 2018; Lin et al., 2018).

Furthermore, our results provide further empirical evidence for the link between deservingness and the type of envy that is generated (Crusius et al., 2017; Van de Ven et al., 2012). If the advantage of the imagined superior other was considered deserved, it was more likely to elicit benign envy. If the envier is outperformed by someone who is in fact better off, he/she will become frustrated and will increase efforts to be similar (Lange & Crusius, 2015a; Salovey & Rodin, 1984). However, if the envier is outperformed by someone perceived as undeservedly better off, he/she will become frustrated, but the subjective feeling of injustice will promote hostile tendencies (Smith, 1991).

In summary, Study 5 provides evidence to support the hypothesis that SSS plays a more prominent role in the generation of envy. However, in Study 5 the comparative reference point was chosen by the participants, therefore the individual differences of the social distance with the superior could distort the results. Furthermore, participants needed to rely on personal memories can differ in reliability. Therefore, in Study 6 we decided to give a standard reference point in order to investigate the role of status in the generation of envy to investigate the role of status in a controlled vignette situation by systematically manipulating SSS and OSS.

II.2.2. Study 6

In Study 6, we systematically manipulated social status and perceived deservingness in a hypothetical situation against a standard reference point. We predicted that within SSS, deservingness should have opposite effects on benign and malicious envy. On the other hand, in contrast to Study 5, we expected that the effect of deservingness on OSS would be similar, as individuals tend to overestimate OSS in hypothetical situations (Bolló et al., 2018; Lin et al., 2018).

II.2.2.1. Methods

Participants

A total of 389 Hungarian participants were recruited from topic-irrelevant social media groups with more than 10,000 members. Of these, 332 were female and all were aged between 18 and 64 ($M_{\text{age}} = 31.74$ years, $SD_{\text{age}} = 11.77$ years). As far as their level of education was concerned, 296 (76.1%), of them had a university degree, 85 (21.9%) had finished high school, and 8 (2.1%) had finished elementary school. A total of 132 (33.9%) lived in Budapest, 193 (49.6%) lived in towns, and 64 (16.5%) lived in small towns or villages.

Materials and Procedure

Participants gave their informed written consent in accordance with the Declaration of Helsinki by ticking a box before participating in the online study. Participants were taken straight to the end of the survey if they did not give this consent. The study was approved by the Research Ethics Committee of Eötvös Loránd University's Faculty of Education and Psychology.

A 2×2 vignette study was carried out to investigate the effects of social status (OSS or SSS) and perceived deservingness (deserved or undeserved) on benign and malicious envy.

Following procedures similar to those in Study 5, participants were asked to imagine that they had been working for a multinational company and that “Gabi” (which is a gender neutral name in Hungarian) was one of

their colleagues. Participants were asked to imagine a scenario in which their OSS and SSS were average. Gabi was superior either in terms of OSS or SSS and the status was either deserved or undeserved. OSS was characterized by financial situation, education, phone, type of home, and clothes. SSS was characterized by the level of respect, admiration and influence among colleagues. An example of higher deserved OSS was a better financial situation because of hard work. An example of higher undeserved OSS was a better financial situation because Gabi had “cozied up” to the boss. An example of higher deserved SSS was Gabi commanding more respect, admiration and influence among other colleagues because Gabi is dependable. Higher undeserved SSS was characterized by more respect, admiration and influence among others because Gabi had “cozied up” to everyone.

Participants were then asked to complete the BeMaS Scale (Lange & Crusius, 2015a), which measures benign and malicious envy. Participants were requested to describe how they would feel about “Gabi” using the same procedure as in Test 1 (e. g. for benign envy: “I would strive to reach Gabi’s superior achievements”, $\alpha = 0.774$. For malicious envy: “Seeing Gabi’s achievements would make me resent him/her”, $\alpha = 0.825$). Finally, questions were asked in relation to participants’ gender, age, education and place of residence. All materials are available here: <https://osf.io/7u3y4/> or Appendix 2 contains the full design of the studies.

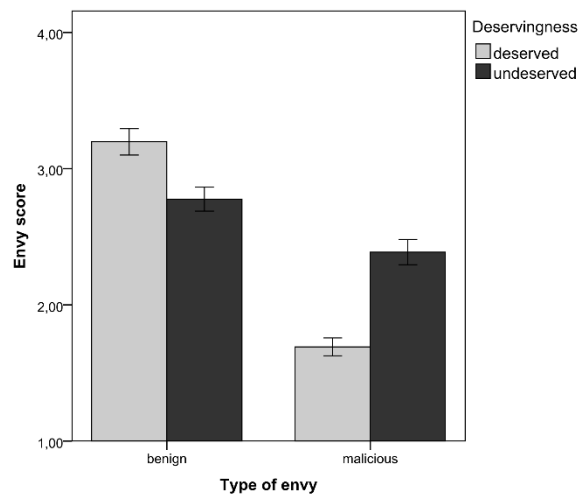
II.2.2.2. Results

There was no significant difference between the four groups regarding gender, age, place of residence and educational level (all p-values $>.05$).

The GLMM analysis showed that status had a significant main effect on envy ($F_{1, 770} = 5.63$, $p = .018$), which indicates higher levels of envy in relation to SSS than to OSS. Furthermore, there was significant interaction (Figure 6) between deservingness and the type of envy, $F(1, 770) = 59.56$, $p < .001$. Pairwise comparison revealed that benign envy was more likely if the superior other was deemed to have a deserved

advantage (than if the advantage was perceived to be undeserved), $t(770) = 3.407$, $p = .001$, 95% CI (0.177; 0.658) and malicious envy was more likely if the superior other was deemed to have an undeserved advantage (than if the advantage was perceived to be deserved) $t(770) = 5.665$, $p < .001$, 95% CI (0.454; 0.935).

Figure 6 The interaction between deservingness and type of envy in Study 6



Note. Error bars represent one standard error of the mean.

II.2.2.3. Discussion

Study 6 gave further empirical evidence for our hypothesis regarding the prominent role of SSS in the generation of envy. Accordingly, if someone else is more respected and better off in a social sense it generates more painful envy. Although, in Study 6 was contradictory to previous findings (present thesis Study 3, Lin et al., 2018) suggesting that people are prone to overestimate OSS in hypothetical vignette situations. In the present vignette study, individuals did not confer more importance to OSS. However, there are some differences from previous studies. In the study of Lin et al. (2018), the superior others were the respondents, whereas in the present study the respondents were those ones who were envious of someone else. Furthermore, in the study of

Bolló et al. (2018, Study 3 present thesis it was also the respondents' own OSS and SSS that were compared, unlike in Study 6

Furthermore, as in Study 5 and previous research (Lange & Crusius, 2015a; Van de Ven et al., 2012), Study 6 provided further empirical evidence for the differentiating role of deservingness. Our results confirmed that perceptions of deservingness are linked to benign envy (Lange & Crusius, 2015a; Salovey & Rodin, 1984) while perceptions of undeservingness are linked to malicious envy (Smith, 1991).

III. General discussion

The aim of the present research was to investigate the dynamics behind social status and self-conscious emotions. Although emotions have a fundamental role in status seeking, attainment and navigating in the social hierarchy (Griskevicius et al., 2010), little is known about the characteristics of status itself which can influence the experience of status-related emotions. Therefore, in the present research we took a step back and investigated the nature of social status considering its objective and subjective aspect in the framework of the Dominance-Prestige Model. Regarding status-related emotions we focused on pride, as the fundamental affective mechanism of high status and envy, as a response to high status. Although it is important to mention that these two emotions are not the opposite of each other because pride is rather reflecting on the self whereas envy is a socially more embedded disposition. We found that subjective social status has a prominent role in the generation of pride and envy. Furthermore, we also found that in case of pride, people tend to exaggerate the importance of material goods in hypothetical situations, although it is not the case in self-report studies.

III.1. Pride and social status

In the present research project, four studies provided evidence for the differentiated role of SSS and OSS in status maintenance strategies and pride. Our main result was that SSS—in contrast to OSS—was more strongly related to authentic pride via prestige. Regarding the role of OSS in status maintenance strategies and pride it had different effects depending on the design of the study. In the questionnaire studies (Study 1 and 2) OSS was unrelated to both status maintenance and facets of pride. However, in the vignette studies (Study 3 and 4) when participants had to evaluate a stereotypical situation OSS played a more significant role. The four studies could provide a more differentiated picture about the relationship pattern between social status, status maintenance strategies

and facets of pride and emphasize that pride cannot be dealt as a homogenous construct in emotion research.

The role of subjective social status in authentic pride

All four studies have confirmed that contrasting to OSS, SSS has a more central role in pride. This result indicates that pride is the outcome of a personal subjective evaluation of status that reflects rather the sum of social feedback received from group members than such objective measures as education, goods or wealth. In all four studies SSS was related to authentic pride via prestige. These results indicate that individuals, who are appreciated by friends, family and colleagues (high SSS), often share their knowledge, skills and are helpful (prestige), while experiencing accomplishment, confidence and success (authentic pride). This whole cycle can be explained by the Matthew-effect (Merton, 1968) postulating the “rich get richer” principle in which a positive feedback loop can be generated regarding social feedback (de Rijt, Kang, Restivo, & Patil, 2014; Petersen, Jung, Yang, & Stanley, 2011). Individuals with higher ranks on the subjective social status ladder tend to use socially accepted prestige-based status maintenance strategies and experience the authentic pride which is also socially accepted (Williams & DeSteno, 2009). For this reason it is not surprising that they become socially more accepted and appreciated, which in turn, can result in a positive feedback circle.

The apparently missing link between objective social status, dominance, prestige and facets of pride

In the first two questionnaire studies OSS either played a non-significant or a negligible role in status maintenance strategies and facets of pride. These results indicate that when individuals evaluate themselves (reporting about the self), objective status (income, goods or education) is not associated to status maintenance strategies. However, when manipulating OSS systematically (Study 3), it had an effect on both authentic and hubristic pride, but it was still unrelated to status maintenance strategies. In the situation evaluation task (Study 4), in which

another person was evaluated instead of the self, OSS was associated with dominance. There are more possible explanations of these apparently missing links of OSS.

One explanation could be that individuals tend to use different signals of status when they observe other people and make opinions about their behavior and emotions in contrast to when they observe their own behavior and inner states. When evaluating others (vs. the self), visual cues of status (e.g., clothes, car or cellphone) might become more important signals. The higher salience of these cues of OSS can make individuals to draw conclusions about how others maintain status or how proud they might be. It can be an example of the correspondence bias (Jones & Davis, 1965; Pronin, Gilovich, & Ross, 2004), when individuals tend to draw inferences from observed behavior to one's dispositions. This might be the reason of the relatively strong association between OSS (e.g., observed visible characteristics) and dominance status maintenance strategies (e.g., aggression-related dispositions) if others are evaluated (see Study 4). However, this link is missing (see Study 3), when participants report about their own aggressive status maintenance strategies, which can be mainly attributed to situational factors (based on the the actor–observer asymmetry of Jones & Nisbett, 1971). In sum, these results suggest that evaluating the self vs. others can have serious implications regarding the relationship pattern of social status, its maintenance and pride.

The missing link between OSS and other constructs in the questionnaire studies can derive from methodological considerations regarding the signals of objective status which is related to the conceptualization of OSS. In Study 1, it was characterized by only two dimensions (level of education in six main categories and income in five categories). In order to obtain more detailed OSS data, in Study 2, we assessed additional OSS indicators in terms of financial wealth and material possessions, but no relevant links of OSS were found. Furthermore, the inter-correlations between OSS indicators were not strong (see Table 2). Therefore, we cannot claim that there were participants with unequivocally high OSS and unequivocally low OSS. Consequently, in the following vignette studies, instead of more and more

precise assessments, we manipulated OSS in a stereotypical way and shifted all indicators to a high level or low level. In sum, despite our efforts to identify appropriate self-reported measures of OSS, the assessment of OSS is a complicated issue in which obtaining “objective” OSS data (i.e., pay check, material goods, debts, etc.) can be the next step in future studies.

All in all, in the case of the questionnaire studies (Study 1, Study 2) it appears that the OSS did not play any role in pride and status maintenance strategies, while SSS shows a consistent relationship pattern. In these assessment situations participants wrote about their own situation, and perception regarding their status, its maintenance and pride. However, in the case of vignette studies (Study 3, Study 4) they report their opinion about imagined situations in which they can observe themselves and other people from an idealistic perspective in which all objective status indices are in line (high education, own apartment, high end goods, high income, etc.). In the current circumstances of the respondents there is no link between OSS and authentic pride, but it is possible that in the imagined, idealistic situation respondents may believe that the possession of these things can lead to a certain satisfaction that appears in the form of authentic pride (accomplishment, success, etc.).

III.2. Envy and social status

According to the social-functional approach to envy, the goal of envy is to lessen the social status gap between the self and a superior other (Lange & Crusius, 2015b, 2015a; Van de Ven et al., 2009). Previous research on envy was more focused on material inequalities (Carter & Gilovich, 2010; Fiske, 2011; Lin & Utz, 2015; Lin et al., 2018), the present research aimed to investigate the subjective facet of social status as well, taking into account the role of deservingness. Our findings suggest that SSS intensifies feelings of envy more than OSS and that deservingness helps differentiate between benign and malicious envy. A potential explanation for the prominent role of SSS in envy is that social factors are

more related to our identity and cause more frustration which can result in envy (DeSteno & Salovey, 1996; Salovey & Rodin, 1984).

There are two contradicting theories regarding the role of material things in envy. Some scholars suggest that as material possessions are easily comparable, individuals compare themselves more frequently in this domain, and that consequently envy is experienced more in relation to material possessions (Carter & Gilovich, 2010). In contrast, others suggest that envy is most intense when social comparison is important for a person's identity (Bolló et al., 2018; Salovey & Rodin, 1984).

Furthermore, although previous studies indicated that individuals tend to exaggerate the importance of OSS in hypothetical situations (Bolló et al., 2018), this study did not confirm this finding. In Study 2 respondents were asked to evaluate their feelings in a hypothetical situation but SSS still played a more prominent role. However, in Study 2 participants were asked to imagine that they were in the role of the envier, while in previous studies they were either the envied one (Lin et al., 2018) or the comparison affected their own status (Bolló et al., 2018). The findings of this study suggest that there is a discrepancy between what individuals believe others are envious of and what they themselves are envious of, which can be a direction for future research.

Furthermore, the present research replicated previous findings about the role of deservingness in envy (Crusius & Lange, 2017; Lange & Crusius, 2015a; Smith, Parrott, Ozer, & Moniz, 1994). Benign envy was more likely to be expressed when the superior other's outcome was deserved and malicious envy was more likely when it was seen to be (Study 1) or characterized as (Study2) undeserved.

In summary, the findings indicate that SSS and OSS play different roles in the generation of envy. SSS is more relevant in upward social comparisons leading to benign and malicious envy, and material possessions do not motivate people to move up the social hierarchy to the same extent.

III.3. Limitations and future studies

Although the present research aimed to be pioneer investigating the differentiated role of social status in pride and envy, it is not without its limitations. First of all, as we discussed in the first few lines of the present thesis, we conceptualized pride and envy in terms of hierarchy following previous authors in the field (Åslund et al., 2009; Cheng et al., 2010; Crusius & Lange, 2017), although the other way to talk about these social structures would be the network approach. In this case, we have to mention that respect from others and its underlying emotions can be differently distorted for central and peripheral individuals (Hunyady, 1967). Therefore, examining the relationship between centrality and pride vs. envy can be a fruitful area for future research.

Another major concern regarding this type of research area comes from the forced dichotomy of the measured constructs: the two facets of pride, the two sides of envy, two types of status, two strategies to maintain status, deserved or undeserved, etc. Moreover, we can have the impression that every construct has a “good” and a “bad” side which is clearly a false illusion. However, quantitative research methods aim to associate every phenomena with a number, which often leads to reduction of the multilayered and colorful nature of human life. Michell (1999) identified two main issues regarding quantitative measures: (1) most quantitative research is based upon the fact that psychological attributes can be measured; (2) most quantitative researchers adopt a narrow definition of measurement, that measurement is the assignment of numbers to objects and events according to specific rules. Furthermore, Toomela (2008) pointed out that a further limitation can derive from how quantitative variables may encode information and how statistical analysis may not always allow a meaningful theoretical interpretation, because of ambiguity of information encoded in different variables, and because of limitation of statistical techniques. This is especially true in case of OSS, because every researcher encodes different information under the name of OSS which makes results hardly comparable. Considering these issues, qualitative

research methods in the field of status and emotions can be a fruitful area of future research.

Beside this major concerns, there were other inconsistencies in the studies. First, female respondents were over-represented in the samples and the samples were not representative. In the field of social comparison and related emotions this is quite a sensitive topic. Previous studies suggest that women are more likely to avoid socially comparative situations than men (Niederle & Vesterlund, 2007; Rand, 2017) which can have an effect on envy. Future studies should implement more balanced and comprehensive samples.

Second, all studies were cross-sectional and no behavioral measures were used. Future studies should apply longitudinal and experimental design. Regarding the direction of the hypothesis, we would like to refer to the process model of self-conscious emotions (Tracy & Robins, 2004, 2007a). According to the process model of self-conscious emotions, there is an eliciting event which is evaluated by the individual and evokes emotions. As pride and envy are status-related emotions, first of all, there is a gained status, which can make the individual to be proud/envious of. In line with this, we phrased our hypothesis in this direction. Of course, SEM analysis does not allow us to draw causal conclusions, in Study 3-6 status was manipulated but we would like to emphasize that this is not a one-way causal path.

Third, in Study 1 and Study 2 social desirability, in Study 4 availability bias could distort the results. Future studies should use not only self-report and situation evaluation task but make more effort to reduce or eliminate these biases. Furthermore, Study 3 was a situation evaluation task with an imaginary scenario in which respondents were requested to indicate how they would behave and feel in that situation which can be dissimilar to their real-life reactions. Moreover, Study 4 can also provide only limited information about how respondents would evaluate someone with similar behavior in real-life situation.

Another limitation of this research comes from the broad definition of SSS. According to the original instruction of the MacArthur ladder by Adler et al. (2000), participants can think of different social groups when

they evaluate their positions. Based on Adler's (2000) research, it is known that most people define community as their neighborhood (57%), city or town (37%), religious groups (22%), social supporters (20%), workplace (18%), family (18%), friends (12%), people who share their interests (12%), their region (12%), and, finally the nation or world (10%). In Study 3 and 4, high and low SSS was presented in a workplace environment.) Due to this, the social group chosen by the participant may not be irrelevant to OSS. The precise conceptualization of the content of SSS and its relationship to OSS regarding domain-specific status-maintenance strategies and pride may be an important area for future research. Furthermore, previous studies showed that OSS is related to SSS (e.g., Kim et al. 2017), which can also distort the results. However, in Study 1 and 2, significant but relatively weak correlations were found between OSS indicators and SSS.

Future studies should aim to reduce these above mentioned biases for example with experimental designs. Vignette method is a bridge between questionnaires and experiments and appeared to be a good path to follow. Furthermore, as mentioned above, the relationship between SSS and OSS is a bit unclear, because it may depend on the reference group for SSS. To precise the content of SSS and its relationship with OSS, can be a fruitful area regarding the social dynamics and appraisal processes of pride or maybe investigating domain-specific status-maintenance strategies and domain-specific pride. Furthermore, to get deeper understanding of this relationship pattern, additional constructs can be taken into consideration. This also means that a new line of research would integrate these findings about status and pride and status and envy from a personality psychology perspective or even consider more complex social phenomena - based on self-conscious emotions and their interactions - like gelotophobia, the fear of being laughed at (Háger & Bolló, 2019). In addition, to draw causal conclusions longitudinal studies should be carried out, investigating how changes in OSS and SSS changes over time can influence status maintenance strategies and the two facets of pride. It can be especially true, if one examines status-relevant transition periods, for example before and after (deserved and undeserved) promotions.

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Appendix 1

Study 3 vignettes

OSS low-SSS low

Imagine that you are 25 years old, have a vocational school degree, and have been working for a telecommunicational multinational company for 2 years. You make both ends meet although not spend too much money. You don't have money for the latest phone or expensive clothes. You live in a flat where you rent one room and one of your acquaintances rent the other one.

You give a presentation at your company to your boss in which you present your success, which was 20% higher than the expected key performance indicators. Your boss appreciates your work and reward you with a new laptop.

Your colleagues do not really respect and admire you and your word doesn't count for them.

OSS low-SSS high

Imagine that you are 25 years old, have a vocational school degree, and have been working for a telecommunicational multinational company for 2 years. You make both ends meet although not spend too much money. You don't have money for the latest phone or expensive clothes. You live in a flat where you rent one room and one of your acquaintances rent the other one.

You give a presentation at your company to your boss in which you present your success, which was 20% higher than the expected key performance indicators. Your boss appreciates your work and reward you with a new laptop.

Your colleagues do respect and admire you and your word count for them.

OSS high – SSS low

Imagine that you are 25 years old, have a university degree from Corvinus [a university with high reputation in Hungary] have been working for a telecommunicational multinational company for 2 years. You have the latest iPhone, fashionable clothes and live in your own flat without financial problems.

You give a presentation at your company to your boss in which you present your success which was 20% higher than the expected key performance indicators. Your boss appreciates your work and reward you with a new laptop.

Your colleagues do not really respect and admire you and your word doesn't count for them.

OSS high – SSS high

Imagine that you are 25 years old, have a university degree from Corvinus [a university with high reputation in Hungary] have been working for a telecommunicational multinational company for 2 years. You have the latest iPhone, fashionable clothes and live in your own flat without financial problems.

You give a presentation at your company to your boss in which you present your success which was 20% higher than the expected key performance indicators. Your boss appreciates your work and rewards you with a new laptop.

Your colleagues do respect and admire you and your word counts for them.

Appendix 2

Study 5 design

OSS condition:

Think about someone from your friends, colleagues or acquaintances, etc. who is better than you in domains of things which are important in your everyday life.

For e.g.

- *has more money*
- *lives in better financial condition*
- *has a nicer home*
- *all in all, lives better from a material perspective*

Please write down a few sentences about this other person!

SSS condition

Think about someone from your friends, colleagues or acquaintances, etc. who is better than you in domains of things which are important in your everyday life.

For e.g.

- *he/she is more respected*
- *he/she is more admired*
- *he/she has more influence*
- *all in all, others respect his/her opinion more than yours.*

Please write down a few sentences about this other person!

How do you feel about this other person? (1-6)

(Benign) When I envy others, I focus on how I can become equally successful in the future.

(Malicious) I wish that this superior other would lose his/her advantage.

(Benign) If I notice that this other person is better than me, I try to improve myself.

(Benign) Envyng others motivates me to accomplish my goals.

(Malicious) If other people have something that I want for myself, I wish to take it away from them.

(Malicious) I feel ill will toward who I envy.

(Benign) I strive to reach his/her superior achievements.

(Malicious) Envious feelings cause me to dislike the other person.

(Benign) If someone has superior qualities, achievements, or possessions, I try to attain them for myself.

(Malicious) Seeing this person's achievements makes me resent them.

Do you think that his/her advantage is deserved or undeserved?

- Deserved
- Undeserved

Finally please answer some short questions about yourself!

Gender: Male / Female

Age: ...

Type of your city: village / town or city (in Hungarian it is the same) / capital

Your education: 8 elementary / highschool degree / university degree

Study 6 design

Below you will read a short description of a situation. Imagine the situation then answer how would you feel in this situation on the next page.

Higher OSS - undeserved

Imagine that Gabi is one of your colleagues.

You have a quite good university degree and you have an average salary. You have to economize but sometimes you can let yourself to buy some extra stuff. You have a quite good phone and fashionable clothes. You have your own small flat and you bought from a loan and pay back monthly.

You have a good relationship with your colleagues, there are some people who like you and some who don't really.

So Gabi is your colleague.

Gabi has the best university degree and his work is the same as yours but earns more money because he is cozy up to the boss. He has the latest phone, the most fashionable clothes and lives in his own house with a garden without financial issues. All in all he lives in better financial circumstances than you.

His relationship with the others the same as yours.

Higher OSS - deserved

Imagine that Gabi is one of your colleagues.

You have a quite good university degree and you have an average salary. You have to economize but sometimes you can let yourself to buy some extra stuff. You have a quite good phone and fashionable clothes. You have your own small flat and you bought from a loan and pay back monthly.

You have a good relationship with your colleagues, there are some people who like you and some who don't really.

So Gabi is your colleague.

Gabi has the best university degree and his work is the same as yours but earns more money because he works more hard and he does quite a lot overtime. He has the latest phone, the most fashionable clothes and lives in his own house with a garden without financial issues. All in all he lives in better financial circumstances than you.

His relationship with the others the same as yours.

Higher SSS - undeserved

Imagine that Gabi is one of your colleagues.

You have a quite good university degree and you have an average salary. You have to economize but sometimes you can let yourself to buy some extra stuff. You have a quite good phone and fashionable clothes. You have your own small flat and you bought from a loan and pay back monthly.

You have a good relationship with your colleagues, there are some people who like you and some who don't really.

So Gabi is your colleague.

He lives in similar financial conditions as you.

Furthermore, everyone else likes Gabi, your colleagues respect and admired him. Even in case of the most important questions his word counts the most, but only because he is cozy up to everybody.

Higher SSS - deserved

Imagine that Gabi is one of your colleagues.

You have a quite good university degree and you have an average salary. You have to economize but sometimes you can let yourself to buy some extra stuff. You have a quite good phone and fashionable clothes. You have your own small flat and you bought from a loan and pay back monthly.

You have a good relationship with your colleagues, there are some people who like you and some who don't really.

So Gabi is your colleague.

He lives in similar financial conditions as you.

Furthermore, everyone else likes Gabi, your colleagues respect and admired him. Even in case of the most important questions his word counts the most, because he is dependable.

How would you feel about Gabi? (1-6)

(Benign) When I envy Gabi, I focus on how I can become equally successful in the future.

(Malicious) I wish that Gabi would lose his/her advantage.

(Benign) If I notice that Gabi is better than me, I try to improve myself.

(Benign) Envyng Gabi motivates me to accomplish my goals.

(Malicious) If Gabi has something that I want for myself, I wish to take it away from him/her.

(Malicious) I feel ill will toward Gabi.

(Benign) I strive to reach Gabi's superior achievements.

(Malicious) Envious feelings cause me to dislike Gabi.

(Benign) If Gabi has superior qualities, achievements, or possessions, I try to attain them for myself.

(Malicious) Seeing Gabi's achievements makes me resent them.

Finally please answer some short questions about yourself!

Gender: Male / Female

Age: ...

Type of your city: village / town or city (in Hungarian it is the same) / capital

Your education: 8 elementary / highschool degree / university degree