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The role of intergroup and temporal comparison in the system
justification processes amongst disadvantaged groups.

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Chapter One

*“Ebbi ben presto abbastanza chiaro che il mio lavoro doveva camminare su due binari:
l’ansia per una giustizia sociale che ancora non esiste e l’illusione di poter partecipare
in qualche modo a un cambiamento del mondo.
La seconda si è sbriciolata ben presto, la prima rimane.”*

Fabrizio De André

Theoretical background

Societies are highly unfair in fact it is well known that in most social arrangements it is possible to identify dominant groups and dominated groups based on different group statuses. From a psychosocial perspective, the concept of status refers to a group's prestige in a social hierarchy on a comparison dimension, which can be valued in relation to relevant outgroups (Jetten et al, 2000). Social hierarchies favor the dominant social groups that hold more authority and prestige and, instead, penalize weaker social groups with less power and resources. From a rational choice perspective (e.g., Coleman, 1990; Feddersen, 2004), it is expectable that the disadvantaged will be more likely to oppose such as social hierarchy and, indeed, some historical events have demonstrated opposition behaviors to the system by members of the disadvantaged status groups through social uprisings and protest movements that sought to disrupt the institutions of power by encouraging social change. Just a few examples are the Flanders revolt (1323-28) that exploded because of the imposition of new tax burdens that the laborers refused to pay. As well as the great peasant revolts of the 17th century due to the increased tax burden and the worsening living conditions of the farmers. Or again, the five long days of Milan (March 18-22, 1848) that led to liberation from Austrian rule by the Habsburgs. More recent examples are social movements like “Black Lives Matter” (movement to fight racism), “Me Too” (feminist movement against women violence and sexual harassment in the workplace), or “Fridays for Future” (protest activism against the climate crisis).

Although there are many examples of opposition to the existing social arrangement, they are only one side of the coin, in fact is possible to find several evidence

in the literature of a system support tendency by disadvantaged-status groups. There are many examples of support for an economic, political, social or gender order. For example, regarding gender relations, some research has shown that even women who are victims of gender discrimination express support for inequality through adherence to gender stereotypes (e.g., considering "warm" a typical female adjective and "ambitious" a male characteristic; Fiske et al., 2002; Connor & Fiske, 2018). Therefore, why should members of disadvantaged-status groups support a system that does not help or support them? In psychosocial terms, the tendency to support existing social arrangements has been termed "system justification" (Jost & Banaji, 1994) which stands for behaviors of tolerance, support and non-opposition to a social system. Although this tendency has been documented among members of both high and low-status groups, the members of advantaged-status groups have an interest in supporting the system that benefits and sustains them, due to the benefits received from it. More interesting is the behavior of system justification from members of disadvantaged-status groups who are those who benefit less from the social system.

The support for unequal system among the disadvantaged was already taken into account by Social Identity Theory (SIT; Tajfel & Turner, 1979). According to SIT, the lack of positive ingroup evaluation experienced by members of disadvantaged-status groups may result in distress resulting from this negative social comparison and consequently from a negative social identity. Individuals are motivated to restore a positive social identity by engaging in several strategies. These could include individual mobility, as moving from the ingroup to another group, or social change overtly trying to change the existing social hierarchy. The chosen strategy depends on socio-structural variables, such as permeability, stability and legitimacy of status differences (see also Ellemers et al., 2002; Jetten et al, 2000). If social stratification is perceived as illegitimate

and unstable, individuals will perceive that there is a possibility of changing the status quo. In this case, members of disadvantaged-status groups may engage in social competition, committing to improving their social position and fighting against social inequality (Mummendey et al., 1999; Rubin et al., 2014). However, it has been shown that the more members of disadvantaged-status groups believe they live in a legitimate and unchanging system, the less they will tend to change their group's position in social stratification (Tajfel & Turner, 1979; Hafer & Olson, 1993). When stability and legitimacy do not allow imagining an alternative arrangement of the social hierarchy (the so-called “cognitive alternative”, Tajfel & Turner, 1979), individuals are more likely to accommodate the social structure rather than challenge it (Mummendey et al, 1999).

The System Justification Theory

Social identity theory has been criticized for being a "conflict theory" as it refers mainly to competition between groups in society for symbolic and material resources but it has weaknesses in that it does not address the social processes through which domination is spread by power-holding groups and the reasons why members of disadvantaged groups support to a system that is not in their best interests (Jost & Banaji, 1994). Therefore, in order to explain the process that drives people to support a status quo, Jost and Banaji proposed the System Justification Theory (SJT; Jost & Banaji, 1994). According to SJT, individuals justify the system in which they live, and consequently, the status differences between groups, because they are motivated to see their social system as just, legitimate, and desirable. Jost & Banaji (1994) recognized two main motivations – congruent with SIT tradition - that drive the individual's behavior. "Ego Justification" describes the need to have or maintain a positive self-evaluation; "Group Justification" concerns the desire to develop and maintain a positive image of their group (positive

social identity). The ego and group justification take shape from the theoretical assumptions of Social Identity Theory (SIT; Tajfel & Turner, 1979), as they are defined as motivations to maintain or achieve a positive self- and group image, respectively. According to Jost and Banaji (1994), these two motivations are not enough to explain the system justification. For this reason, authors theorized a third motivation called "System Justification" describing an autonomous and specific human motivation to believe that the system in which people are embedded is just and legitimate (Jost et al., 2003, 2004; Jost & Banaji, 1994). System justification is a motivation that is closely related to the need to satisfy certain *individual* needs, such as avoiding uncertainty, reducing anxiety and the threat of an unknown reality (Jost et al., 2007; Jost, 2020). According to SJT, then, people would be motivated to justify the system because this helps them to satisfy other cognitive, epistemic, existential and relational needs (e.g., to believe in living in a protected, certain and predictable social environment). According to SJT, the strength of the motivation to justify the system is different depending on the social status of the group people belong to. For example, for members of a high-status group, the ego, the group and the system motivation work in a congruent and linear manner. This means that an advantaged-status group member will be motivated to maintain a positive self-image, of the social group to which they belong, and consequently to maintain a social arrangement that allows them a prestigious social position. Supporting a system in which one is favorably placed means recognizing to have a positive self-identity and to belong in a positively evaluated group. In contrast, for those in a disadvantaged status position, a problem of incongruence between motivations appears. In this case, ego, ingroup and system justification motivations may be at odds with each other. For members of the disadvantaged-status group, indeed, justifying the system implies acknowledging and accepting as just the disadvantage-status position of their ingroup and consequently of

themselves. According to SJT, the dissonance that low-status group members face when they evaluate the system's legitimacy would generate an ideological dissonance (which is a process similar to Festinger's (1962) cognitive dissonance) between ego and ingroup evaluation, on the one hand, and the system justification motivation, on the other. To solve this dissonance, members of the low-status groups would be motivated to embrace the belief that the system is fair and that their ingroup deserves (or is responsible for) their disadvantaged situation. In this way, SJT expects that people who should benefit the most from social change are, paradoxically, those who need to justify the existing system the most in order to reduce ideological dissonance (Jost et al., 2003). So, according to this so-called Status-legitimacy Hypothesis (Brandt, 2013), low-status group members could support the system even more than members of high-status groups, especially when the group's interests are not salient (Jost et al., 2003). According to Jost et al. (2003) "people who are most disadvantaged by the status quo ... [are the] most likely to support, defend, and justify existing social systems, authorities, and outcomes" (p. 13). This is supposed to be due to the need to resolve ideological dissonance and that leads disadvantaged-status group members to legitimize the system more than members of high-status groups do. Some authors have presented results that support the Status-legitimacy Hypothesis. For example, Jost and colleagues (2003) published data in favor of higher justification by members of disadvantaged-status groups, according to which both African Americans (vs. European Americans - Study 1) and low-income Latinos (vs. high-income Latinos - Study 2) supported economic inequity by reputing it to be legitimate and necessary. A few years later, Henry and Saul (2006) showed further evidence to support the hypothesis. The researchers showed that Bolivian people who belonged to economically disadvantaged groups tended to support government policies more than social groups with higher social status. More recently, Sengupta and colleagues (2015) also reported

that ethnic low-status groups in New Zealand showed stronger legitimacy beliefs than high-status groups (except politicized group such as Maori). Although this evidence would seem to support the hypothesis that people in a disadvantaged status position may legitimize the unfair system more than the advantaged status group members, other research did not support the Status-legitimacy Hypothesis (e.g., Trump & White, 2014; Kelemen et al., 2014). For example, from an international survey of 25 nations, Caricati and Lorenzi-cioldi (2012) were the first to show evidence according to which the lower the status, the more critical the group members were and the less they supported an unfair system. Also Brandt (2013) conducted a further study with a huge sample composed of 27,543 participants but failed to demonstrate strong robustness to the Status-legitimacy Hypothesis phenomenon. Moreover, Caricati (2017), considering 36 nations around the world, showed that the distribution of income was perceived to be more equitable by members of advantaged-status groups than by members of disadvantaged-status groups who reported the economic distribution as being too large. Similarly, Vargas-Salfate and colleagues (2018) analyzed the association between different status groups and justification beliefs showing low levels of justification among members of disadvantaged-status groups. In sum, evidence supporting the Status-legitimacy Hypothesis are mixed, but it seems to be more supportive of the idea that the more people are in an advantaged status position, the more they are likely to justify the system.

In the face of the heterogeneity of results in the literature, some researchers have attempted to analyze justification processes through a new lens that takes group interests and identification into consideration. An alternative model to SJT will be presented in the following section.

The Social Identity Model of System Attitudes

Although the explanation given by SJT has found some confirmation in the literature, it is still unclear how autonomous motivation can be sufficient to explain the dynamics of system justification, especially among the disadvantaged-status group members (e.g., Owuamalam et al., 2019). Some authors drawing on SIT (Caricati, 2018; Owuamalam et al., 2018, 2019b; Rubin & Hewstone, 2004, Rubin et al., 2023a-b) have argued that there are motivations that can provide an explanation for cases of system justification and that can be interpreted as strategies that operate in the interests of social identity. In fact, the Social Identity Model of System Attitudes (SIMSA; Owuamalam et al., 2018; Rubin et al., 2023a, b) has been proposed with the aim of providing a deeper understanding of system justification dynamics among low-status groups. SIMSA introduces concerns about the role of identification in the dynamics of system justification. Rather than a specific motivation to legitimize the existing social system, SIMSA researchers propose that social identity motivation may be a driver of the system justification (Owuamalam et al., 2019a) and argue that system justification might be explained in terms of ingroup interests. According to SIMSA, the need for social accuracy and a positively distinct social identity are sufficient to explain the low-status group's system support. The model, however, does not simply predict a positive association between system justification and social identification. SIMSA's eight explanations provide an in-depth analysis of the dynamics of justification at different levels. Indeed, the level of self-categorization activated plays a key role for both SIMSA (Owuamalam et al., 2018, Rubin et al., 2023a, b) and SIT (Tajfel & Turner, 1979). For example, according to SIMSA, if identification is at a superordinate level (e.g., national identification) the system justification is interpreted as favoritism for the (superordinate) group to which individuals belong.

Another distinction made by SIMSA considers politicized social identities. Indeed, some authors (Turner-Zwinkels & van Zomeren, 2021; van Zomeren et al., 2008) have shown that disadvantaged social groups that are particularly strong in terms of group identity and activism (e.g., feminist groups, LGBTQIA+ community) are more likely to show an opposite behavior with respect to system justification (e.g., no tolerance of the status quo) than other groups with not-so-high activism (non-politicized groups). The need for social accuracy is a group-based motivational and collective process that drives individuals' perception of the status relations between subgroups and within a superordinate group (Rubin et al., 2023a). This means that social accuracy would increase the perception of intergroup status hierarchies when status differences are *consensually* seen as legitimate and stable. This consideration is not about social legitimization behaviors (yet) but merely identifies the collective need for which people might accurately perceive a socially agreed hierarchical reality. In this sense, it is assumed that social attitudes can be understood only in the interaction of a positive ingroup distinctiveness placed within a historical, political, and ideological framework (Rubin et al., 2023a).

Based on the claims of SIT, SIMSA predicts that antecedent conditions, such as stability and perceived legitimacy of the social hierarchy can influence the system support behaviors of members of disadvantaged-status groups.

The Explanations of Social Identity Model of System Attitudes

SIMSA offers eight explanations that aim to explain the seemingly paradoxical process of system justification by the members of the disadvantaged-status groups (Rubin et al., 2023a). In this dissertation, we focus on only four assumptions, namely superordinate ingroup bias, downward comparison with a lower-status outgroup,

downward comparison on a compensatory dimension and the hope for future ingroup status.

Superordinate ingroup bias

This SIMSA's hypothesis postulates that disadvantaged-status group members might support the status quo because they perceive the system as an ingroup at the superordinate level. Indeed, considering the general system as a superordinate self-categorization (e.g., the nation) allows the disadvantaged-status group members to embrace a system that reflects an inclusive identity. For example, women can justify an inequitable gender reality if their focus is not at the subgroup level (women vs. men) but at the higher level such as nationality. Accordingly, in samples of women from 91 countries, Owuamalam et al. (2023) showed that support for an unequal gender system is linked to a preference for the country's ways of doing things (bias in favor of their superordinate ingroup). In this case, considering the system as an extension of one's ingroup allows members of disadvantaged-status groups to reach or maintain a good image of themselves and of the group. Again, African Americans might be motivated to support the US government or the US general system when they categorize themselves as a superordinate identity (national identity) rather than a subgroup identity (ethnic identity). In this way, the system justification reflects a favorable evaluation (ingroup bias) of their superordinate group (Caricati et al., 2021, Rubin et al., 2023a, b). In this case, SIMSA expects that members of disadvantaged-status groups may engage in system justification to the extent that the superordinate ingroup is salient and superordinate identification is strong. This assumption is supported by many evidence showing a positive association between national identification and national system justification (see Shayo, 2009; Jasko & Kossowska, 2013; Gustavsson & Stendahl, 2020). Vargas-Salfate

and Ayala (2020) through two studies (one with adult Chilean sample and one with Peruvian undergraduate sample) showed that nationalism (a proxy of superordinate identification) leads to support of the status quo. In Turkey, similar results were found by Akdoğan and Alparslan (2020) with a sample of Kurds who supported the national system to the extent that they identified with the superordinate national group. Again, in an experimental study, Jaško and Kossowska (2013), discovered that identification was positively associated to system justification when identification at the superordinate level (but not subordinate group identification) was salient. Moscato et al. (2021) found that national identification, in a sample of Spanish people, was positively associated with both general system justification and economic system justification.

In sum, according to the ingroup favoritism hypothesis of SIMSA, in some cases, the system support might be nothing more than a positive evaluation of one's superordinate group. In these terms, placing the focus of categorization on a superordinate dimension allows members of disadvantaged-status groups to have favorable comparison and high self-esteem, improving their own and their group's identity (Caricati et al., 2021, Rubin et al., 2023a, b).

Downward comparison with a lower status outgroup

Many contributions in the literature refer to a dyadic hierarchy, characterized by a high-status group and a low-status group. However, social arrangements are often characterized by more than two social groups (Caricati & Monacelli, 2012; Dixon et al., 2020). Building on this assumption and abandoning a dyadic view of social hierarchy, Caricati (2018) theorized the Triadic Social Stratification Theory (currently integrated into the SIMSA model, Owuamalam et al., 2018, Rubin et al., 2023a, b). The introduction of a group in an intermediate position in the social hierarchy permits the study of

justification dynamics by focusing on a continuum in which the social hierarchy does not end with the disadvantaged-status group but continues with more disadvantaged-status groups. TSST refers to SIT (Tajfel & Turner, 1979), as it states that social comparison can lead to two outcomes. On one hand, comparison allows the group to acquire a positive social identity which results in achieving or maintaining a positive self-image. On the other hand, comparison with more successful groups can affect social identity negatively, threatening the social identity and self-esteem of ingroup members. Specifically, members of intermediate-status groups may perform both upward and downward comparisons at the same time (Caricati, 2012). Members of the intermediate-status group can compensate for the negative comparison, which arises with those who are in a better position (upward comparison) because of the comparison with those who are positioned in a worse situation (downward comparison). In this way, the intermediate position allows group members to maintain a positive social identity via downward comparison. In this sense, system justification occurs as long as members of the intermediate-status group can compare positively the ingroup with the lower-status outgroup, offsetting unfavorable comparisons with the higher-status group (Caricati & Owuamalam, 2020). According to SIMSA's assumptions and the specific hypothesis of intergroup comparison, if the comparison with a more disadvantaged-status group is salient and the intergroup hierarchy is perceived as unchanging, the disadvantaged-status group will tend to justify the system more by showing a positive association between system justification and group identification. Caricati and Monacelli (2012) showed evidence in support of this by analyzing the behavior of intermediate-status group members toward high and low-status groups. The authors showed that when social stratification is perceived as stable, the intermediate-status group does not show a sense of threat from outgroups. Members of intermediate-status groups do not want to fight to change the status quo, as this could lead

not only to a desirable improvement but also to a likely decline in the current situation. On the other hand, when the intermediate-status group is faced with unstable social stratification, members of the intermediate-status group tend to show bias, either in the direction of high-status or low-status groups. In this case, there is the possibility of a change in social position, thus provoking a threatening reaction. In fact, when social stratification is downwardly unstable, there is a condition called by the authors "fear of falling" (Ehrenreich, 1990) which is a concern on the part of intermediate-status group members given the risk of losing their benefits and their social position. According to Caricati (2018), when the fear of falling is activated, members of the intermediate-status group are more likely to be concerned with defending their social position from the lower-status group, than engage in social competition with the higher-status group (i.e., justify the existing system). SIMSA assumes that members of intermediate-status groups, provided they can perform positive downward comparison, may show a positive association between group identification and system justification so that they hold the benefits that come from not being completely socially disadvantaged.

Downward comparison on a compensatory dimension

The intergroup comparison is not the only comparison that the disadvantaged-status group members can make. The low-status group members can also make a comparison on another level such as a temporal comparison that is comparing the ingroup situation with different temporal moments. Comparing positively the ingroup with moments in the past that are worse than the present moment allows the disadvantaged-status group members an intermediate positioning between different time moments. For example, some studies (Zagefka & Brown, 2005; Guimond & de la Sablonnière, 2014) have considered the members' perception of the ingroup by comparing the past situation

with the present situation, showing that participants preferred to temporally compare themselves in the past than to conduct intergroup comparisons with the outgroup. Accordingly, SIMSA makes explicit that disadvantaged-status group members can justify the system when they compare themselves positively with the condition of their ingroup in the past. For example, having a positive comparison to the past (e.g., "I think I feel better now than I was before"), or to previous generations (e.g., "I think I live better than my parents' generation") or to one's ingroup's condition (e.g., "My ingroup's situation currently is better than it was in the past") can promote the processes of legitimizing inequality. An analysis conducted with data from 40 nations from the World Value Survey (7th wave) confirmed that superordinate-level identification (addressed earlier), social comparison (as well addressed earlier) and time comparison are independent predictors of system justification (Caricati et al., 2021). The ability to compare positively with a past situation allows members of low-status groups to justify a negative positioning in the present. System justification then becomes the result of a comparison between a negative past situation and a more positive (though not entirely advantaged) present situation. Even for this kind of comparison, SIMSA predicts that members of low-status groups should show a positive association between identification with their ingroup and system justification if they have the opportunity to compare themselves positively with a past condition.

Hope for future ingroup status

Another SIMSA explanation that is examined in this dissertation concerns the hope for future *collective* improvement. The assumption predicts that members of disadvantaged-status groups can justify the social system when they believe that there is a realistic hope of improving their social status and social identity. In other words,

perceiving the system as just and fair would help people to hope that the system will allow the improvement of their collective condition in the future. SIMSA distinguishes two types of stability: long-term and short-term stability. This distinction is necessary because a system can be perceived differently on different timelines. Accordingly, hope for future improvement of ingroup status will be more likely to work when the social system is perceived as stable in the short term, but unstable in the long run (Rubin et al., 2023a, b). This is because the system is perceived as not changeable through immediate actions, but susceptible to change in the long run. These conditions make it unlikely that members of disadvantaged-status groups will question the existing system, while they will be more likely to evaluate the present hierarchies as fair, hopeful that with time they will be able to achieve more equitable outcomes and thus improve their social status (Owuamalam et al., 2018; Owuamalam et al., 2019b). In this way, existing stability prompts the disadvantaged-status group to manage group identity, rather than activating in social competition behaviors. SIMSA states that hope for future group improvement is positively correlated with system justification especially when members of the disadvantaged-status group are highly identified with the ingroup. For example, Owuamalam et al., (2016, Study 2) confirmed the hypothesis by conducting a study with two experimental groups. A high-status group who was presented a long-term stable system and a low-status group who was told that the social system was unstable in the long run. It was found that, for participants in the low-status group, hope mediated the association between system justification and identification with the subgroup when the hierarchy was perceived to be unstable in the long run. Again, research conducted with a sample of 200 individuals from the LGBTQIA+ community highlighted that hope was positively associated with system justification when people perceive themselves to be in a disadvantaged-status position and identify strongly with their group (Bonetti et al.,

2021). Also, Owuamalam et al. (2021) showed that strongly identified women (but not weakly identified women) who hope for future ingroup improvement reported to be more supportive for the existing social and economic system that disadvantaged them.

The other SIMSA explanations are now briefly described because they are not directly related to the present work.

Social reality constraints. According to SIMSA, the disadvantaged-status group members are motivated to justify the system by a need for social accuracy in order to distinguish positively and passively accept the status quo. Specifically, members of disadvantaged-status groups, driven by the need for social accuracy, should be motivated to perceive their ingroup in the same way as it is consensually agreed within the superordinate group and, at the same time, the need for a positively distinct should lead them to perceive themselves as having a higher status than that specified by social consensus. This explanation refers to when the status hierarchy is perceived as stable and legitimate and group members have weak or no identification with their ingroup, but high identification with the superordinate group. For example, members who are highly identified with the ingroup (vs. a weakly identified member) may perceive the group as having a higher status given that the need for a positive social identity will be more relevant for those who are more investing in the ingroup.

Ingroup reputation management. This explanation considers that system justification of disadvantaged-status group members is motivated by avoiding showing their ingroup as resentful because of their disadvantaged social position. In this case, SIMSA predicts a positive correlation between ingroup identification and system justification mediated by ingroup reputation concerns.

Cognitive dissonance reduction. Contrary to SJT's expectations about cognitive dissonance, the dissonance should be positively associated with ingroup identification because strong identification leads people to attribute more value to their ingroup and thus makes it less acceptable to defend their ingroup. In addition, cognitive dissonance should also be stronger when people perceive more, rather than less, dependence on the system since the system is more salient for group members.

Ingroup norm conformity. This explanation refers to social norms shared by the ingroup and prescribing attitudes that support the system. SIMSA predicts a positive association between ingroup identification and system justification when ingroup members adhere to ingroup social norms.

A Meta-analytical review

The Identification-System Justification Debate

SJT and SIMSA approaches have generated a debate in system justification processes. More specifically, what appears to be at the heart of the debate is the identification's role should play in relation to system justification, especially in the most disadvantaged-status groups (Friesen et al., 2019; Jost, 2019; Jost et al., 2019; Osborne et al., 2019; Owuamalam et al., 2019b, 2019a). In general, according to social identity theory (SIT) theorists, system justification is positively correlated with identification. Although system justification theory has been explicitly inspired by Social Identity Theory (Tajfel & Turner, 1979) social identification has not been considered. According to system justification theory, a negative association between ingroup identification and system justification can be expected (Jost et al., 2003; Jost, 2020). Therefore, among members of disadvantaged-status groups, tendencies to legitimize the system are more likely to occur when identification with the subgroup is weak and/or the salience of group identity is low or absent (Jost et al., 2003). Given that support the system would imply behaviors opposite to the motivation of social identity. It is notable to report that only in recent times SJT has begun to consider the overarching identification as a possible aspect influencing motivation to justify in the system. In a recent article, Jost and colleagues (Jost et al., 2023) aimed to clarify the theory's position toward identification, claiming that “it makes perfect sense to us that system justification among the disadvantaged would be positively associated with [...] national identification” (p. 18).

According to SIMSA, instead, system justification can be explained by social identity and group identification among both high and low-status group members. SIMSA places a strong emphasis on social identification of group members and on the relationship between social identification and system justification and expects that social systems are justified to the extent that members of high- and low-status groups identify with that system.

Aim of the present work

Several works have tried to give an explanation for the paradoxical behavior of members of disadvantaged-status groups, who can support a social arrangement that penalizes them. Much research has been carried out with different samples from different social groups, leading to results that go in opposite directions, especially when referring to the relationship between group identification and system justification. Given the different theoretical approaches that have generated much research and from which conflicting results have emerged, we conducted an analysis in order to attempt to settle some of the different findings in the literature.

Based on the debate in the literature, a meta-analysis was conducted with the aim of assessing the association between system justification processes in relation to identification, with particular attention to disadvantaged-status groups.

Moderators in the relationship between system justification and identification

In order to understand more deeply the dynamics of system justification a number of moderators who play a key role in modifying this relationship were considered.

Social status

Both SJT and SIMSA hypothesize a positive association between group identification and system justification in high-status groups. That is because, for SJT, the advantaged-status group members are motivated to maintain a positive self-image, a positive social group image, and consequently a prestigious social position. For SIMSA, the high-status group members want to support the system to guarantee the maintenance of personal and group interests. For the SIMSA approach, this positive association also occurs among intermediate-status groups to hold the benefits that come from not being completely socially disadvantaged (Caricati, 2018; Caricati & Owuamalam, 2020; Rubin et al., 2023a). With regard to low-status groups, according to SJT, disadvantaged-status group members would resolve ideological dissonance by acknowledging that the system is fair, and their own disadvantage is deserved, especially when identification with the group is low (Jost et al., 2003). SJT, therefore, predicts a negative relationship between identification with the ingroup and system justification. SIMSA instead assumes that system justification in disadvantaged-status groups is motivated by the need for positive social identity. Therefore, SIMSA predicts a positive association between ingroup identification and system justification for disadvantaged-status group members.

Hierarchical Level of Social Identification

As was mentioned earlier, the only identification that has been considered by SJT is the identification on a superordinate level. In general terms, both SIMSA and SJT expected a positive relationship between social identification and system justification when the identification is at a superordinate level (e.g., national identification). The type of categorization activated plays a more complex role for SIMSA. In this case, SIMSA interprets justification as favoritism for the (superordinate) group to which the group

belongs. When considering identification with a group at a subordinate level, rather than the superordinate category, SIMSA specifies the role of beliefs regarding status differences. A further distinction can be advanced between subgroups, which refer to an identification on a subordinate level (e.g., African Americans) and politicized subgroups. The last one refers to disadvantaged-status group members that are particularly strong in terms of group identity and activism (e.g., feminist groups, LGBTQIA+). These types of subgroups have been named politicized and refer to socially constructed membership around the critical viewpoint of the ingroup's position in the social system (van Breen et al., 2017). The subgroup identification is more likely to show a negative association toward system justification rather than other groups with not so high political consciousness.

Methods

Selection of studies

We conducted a PsycINFO search in the first months of 2022 for abstracts journal articles, books, book chapters, and dissertations (see Figure 1). We restricted the search to empirical studies and quantitative studies without temporal limits. We used the following search terms “((system AND justification) OR (system AND legitimacy)) AND ((social AND identification) OR (group AND commitment) OR (group AND identity))” applied to all text. This search identified 65 records. We also discovered other 26 papers from Google Scholar search and by reference list inspection. In an attempt to consider as much studies as possible, we added also results from our unpublished research ($k = 18$)

and mailed and twitted EASP members to share unpublished data, obtaining 7 answers one of which, however, referred to a paper already found in the literature search.

Inclusion criteria in the meta-analysis were:

a) include measures of some forms of system justification, such as general system justification, gender system justification, just word belief, perceived legitimacy of the system, institutional trust, perceived level of social sexism (we excluded measures of subjective adhesion to general beliefs such as benevolent sexism as they are not referred to social systems);

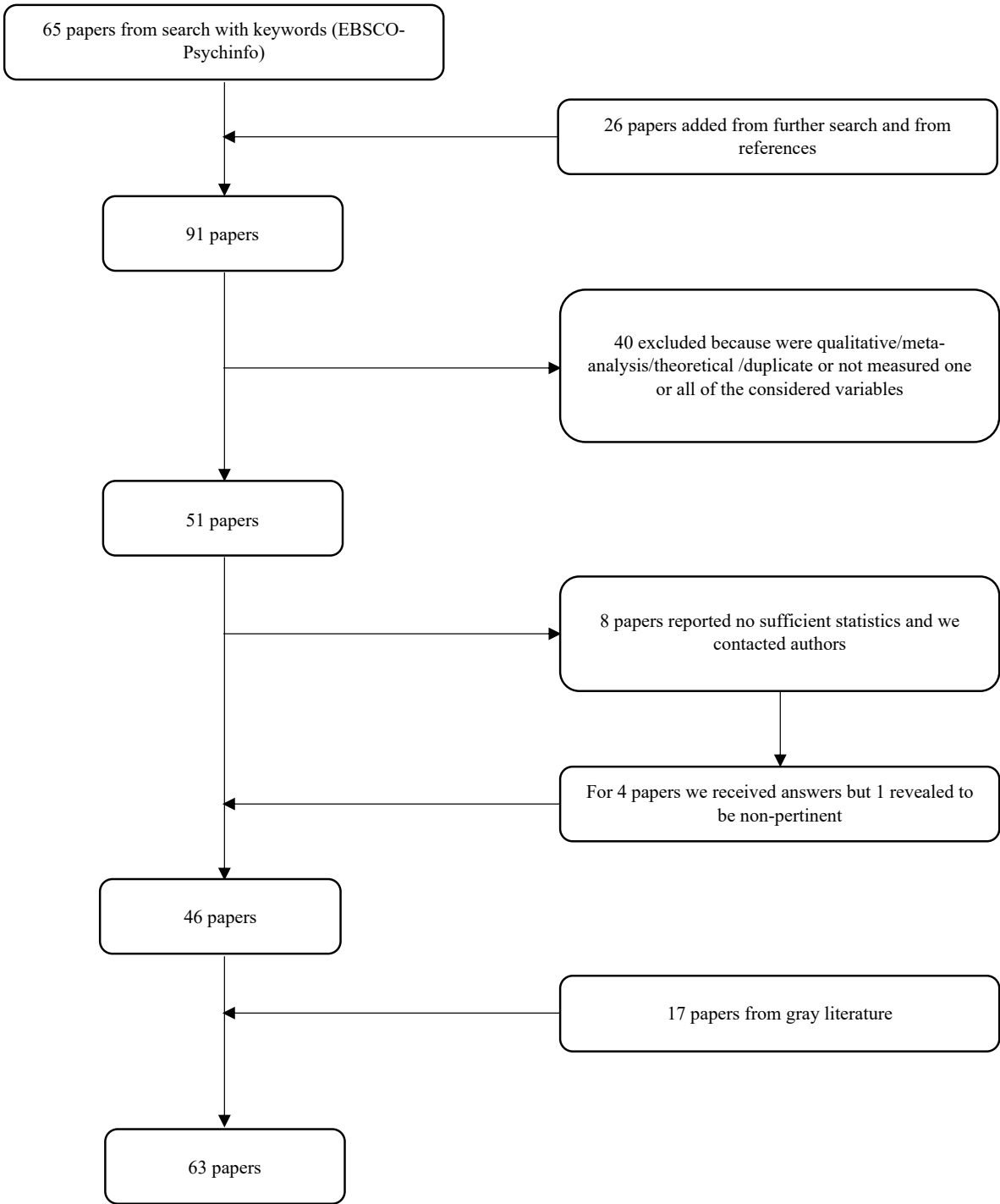
b) include a measure of social identification, such as subgroup identification and national identification;

c) reports sufficient statistics (e.g., r , standardized beta, unstandardized beta, n) to compute effect size;

d) That they were empirical research.

The two most common reasons for exclusion were that studies did not include measures of identification or system justification (77.5%), while 7 (18%) records were excluded because were theoretical or qualitative papers. These criteria left 63 studies eligible for inclusion in the meta-analysis that supplied 203 different samples which in turn supplied 284 different effect sizes. When a sample reported more than one effect size, they were inserted in the database and coded as belonging to the same sample and the same study. We included these sources of dependency between effect sizes in the multilevel meta-analysis.

Figure 1: PRISMA flowchart



Coding of studies

For each sample, we coded the year of publication, nationality, continent, mean age, percentage of female participants, publication type (i.e., scientific or gray), research design

type (i.e., experimental and correlational), kind of measurement (i.e., implicit or explicit), sample kind (e.g., university students, Blacks, Whites, Homosexuals), group status, identification type, justified system type, sample size and effect size. Concerning the principal moderator, we proceeded to categorize them when data were collected.

Regarding social status, we distinguished four different levels: high-status, intermediate-status, low-status and mixed-status. The last level referred to a sample drawn from the general population of which composition in terms of social categories was unknown.

Regarding social identity, we distinguished three categories: national identification (e.g., overarching identification), subgroup identification (e.g., gender identification, ethnic identification, etc.), and politicized subgroup identification (e.g., feminist identification, LGBTQIA+ identification etc.).

To check the categorization consistency, we present to seven independent judges a set of social identity statements (i.e., “Being Italian is very important to me”; “Being a man/woman is an important part of my self-image”, “How strongly do you identify with your ethnic group”) as derived from the existing literature. Our aim was to engage the judges in a categorization task, wherein they were asked to classify each statement of identification into one of three categories: superordinate, subordinate, or politicized. To facilitate this process, we provided clear definitions for each level of identification. For instance, when referring to subgroup identification, we indicated that these items pertain

to affective, cognitive, or evaluative dimensions (or a combination) of belonging to groups that represent specific portions or segments within societies, such as ethnic groups. Inter-rater agreement (Krippendorff's alpha for nominal data) was 0.87. Hence, we can say that there was substantial agreement about our categorization of identification types. To code effect sizes, we directly reported Pearson's coefficient of correlation. In a few cases ($k = 5$), standardized or unstandardized coefficient regression was reported and was transformed to r following the formula by Peterson and Brown (2005). If a study reported both Pearson's r and regression coefficients, we recorded the correlation coefficient only.

Meta-analytical procedure

General approach. All meta-analytical procedures were performed in R (R core team, 2022) and with metafor Package principally (Viechtbauer, 2010). For moderation analysis, we used a meta-regression procedure in which we dummy coded categorical moderators with more than two levels. We performed a meta-analysis on all samples and a further meta-analysis on a subset of samples that only included low-status groups. We used this two-pronged approach because, although support for the existing social system among high-status groups is easy to understand, system justification among low-status groups is the most puzzling effect to explain, and it also provides the most incisive test between SJT and SIMSA. Thus, the focus on low-status groups is of particular theoretical and practical relevance.

We started by correcting correlation coefficients for small sample bias and subsequently transforming them into Fisher's Z_r values. Considering that a number of samples supplied several outcomes and a number of papers supplied several samples, we

considered sources of variability due to dependency among effect sizes (coming from the same sample) and dependency among samples (coming from the same paper/research). We then performed a 4-level random meta-analysis in which we tried to consider as many sources of variability as possible. This procedure allowed to estimate the sampling variance for each effect size (Level 1), the variance among effect sizes coming from the same sample (e.g., within-study variance, Level 2), the variance among studies coming from the same paper or research (Level 3), and the variance among papers (Level 4).

Sensitivity analysis. We also performed sensitivity analyses to identify influential cases and outliers in our dataset. To this end, we ran the meta-analyses excluding one observation at a time, observing whether the pooled effect showed a relevant modification. We considered Cook's distance (Cook & Weisberg, 1982; similar to Mahalanobis distance) among observations when each observation was included and excluded from the dataset. We also considered standardized residuals for which scores higher or lower than 2.24 indicated extreme observations (Aguinis et al., 2013). Moreover, we considered hat values (or leverage) whose values were greater than $3 \cdot p/k$, where p is the number of predictors and k is the number of observations, are considered influential (Viechtbauer, 2020). Finally, we considered also dfbeta which indicates how many standard deviations would change the estimated coefficient when each observation is excluded. In this case, values greater than 1 suggest influential cases (Viechtbauer, 2020). We excluded influential cases to observe whether exclusion would substantially change pooled results.

Publication bias and power. To evaluate publication bias and given the complexity of the structure of our analysis, we used a generalization of Egger's regression test by meta-regressing the model on measures of precision such as the standard error of effect size and reciprocal of sample size. We also performed a p -curve analysis to detect

publication bias due to p -hacking and the obtained power of our meta-analysis. This analysis tests the right-skewness of the p -curve which indicates that the “true” effect is existent in the meta-analyzed data, and the flatness of the p -curve, which indicates insufficient power. We did not expect to find publication bias because most studies that were included in this work were not originally aimed at analyzing the relationship between identification and system justification.

Results

Description of the studies

The dataset consisted of 63 studies supplying 203 different samples and 284 different effect sizes. Studies were published or carried out between 2000 and 2021 ($Mdn = 2018$), 45 (71.4%) were from scientific literature (vs. grey literature). Sample sizes ranged from 21 to 22,703 ($M = 604.07$, $SD = 2433.97$) including 122,626 participants in total who were on average 63% women ($SD = 26\%$, range = 0% - 100%). The mean age was 28.19 ($SD = 8.51$, range = 16.69 – 56). 42.9% of samples were from university student populations, 41.9% were from community populations, and 11.8% were from populations that contained both students and non-students. For 100 (49.3%) samples, no information about the ethnicity of participants was reported, while 33.5% of samples were composed totally or mostly of White participants. 112 (55.2%) samples came from experimental research while 91 (44.8%) came from correlational research. No studies manipulated social identification directly while system justification was manipulated in two samples. All studies used explicit measurements. 48 (23.8%) of samples came from

North America, 50 (24.8%) from South Europe, 11 (5.4%) from North Europe, 16 (7.9%) from East Europe, 25 (12.4%) from Western Europe, and 18 (8.9%) from Asia.

Pooled effect

The overall effect was significant, $Z_r = 0.093$, $SE = 0.031$, $p = .003$, 95% CI [0.033, 0.153], $r = .093$ indicating that system justification and social identification were positively but weakly correlated with one another. There was a high level of total variance, $Q(283) = 7166.033$, $p < .0001$, $I^2 = 97.25$, which was mostly due to differences within studies (Level 2: $\sigma^2 = 0.037$, $\chi^2[1] = 1083.817$, $p < .001$, $I^2 = 46.97$) and between papers (Level 4: $\sigma^2 = 0.046$, $\chi^2[1] = 33.718$, $p < .001$, $I^2 = 50.28$), rather than differences within samples (Level 3: $\sigma^2 < .001$, $\chi^2[1] < .001$, $p = .999$, $I^2 < .001$) and sampling error (Level 1: $I^2 = 2.75$). Results indicated that the strength and direction of the relationship between system justification and social identification was highly variable, suggesting the usefulness of moderator analysis.

Analysis of Non-Substantive Moderator Variables

We tested the effects of several types of moderators that were linked to both research design and sample characteristics. Meta-regression results indicated that average effect size for the association between social identification and system justification was not affected by year of publication ($b = 0.008$, $SE = 0.006$, $t = 1.177$, $p = .240$, 95% CI [-0.005, 0.020]), whether papers were from scientific or grey literature ($F(1, 280) = 1.928$, $p = .166$), whether research designs were correlational or experimental ($F(1, 282) = 1.379$, $p = .241$), the continent on which research was undertaken ($F(8, 273) = 1.185$, $p = 0.308$), whether samples were composed by students or not, ($F(1, 282) = 0.145$, $p = .703$), or the age of participants, ($b = 0.001$, $SE = 0.003$, $t = 0.066$, $p = .947$, 95%CI[-0.005, 0.005]).

Regarding sample ethnicity ($k = 158$), and providing early indications of potential status effects, the association between system justification and identification was stronger and positive for White and Asian samples ($Zr = 0.170$ and $Zr = 0.206$). However, for ethnically mixed samples, this relationship was positive, even if close to zero ($Zr = 0.04$), while it was negative for samples composed of mainly Blacks and Latinos and Maori and Pacific Islanders ($Zr = -0.113$ and -0.074 respectively, $F(4,153) = 3.595$, $p = .008$). Finally, the association between system justification and identification was reduced when the percentage of females in the sample increased ($b = -0.168$, $SE = 0.056$, $t = 2.980$, $p = .003$, $95\%CI[-0.279; -0.057]$).

We also considered different types of system justification that were recorded as potential moderators. Indeed, researchers used different operationalization of system justification and, in this study, we detected seven major types of justification: general system justification ($k = 159$, e.g., “In general, I find society to be fair”), gender system justification ($k = 53$, e.g., “In general, relations between men and women are fair”) including sexist attitudes (e.g., “Society has reached the point where women and men have equal opportunities for achievement” reverse), economic system justification ($k = 18$, e.g., “If people work hard, they almost always get what they want”), justification of government and state’s apparatus ($k = 20$, e.g., “Italian laws are enforced based on accurate information”), healthcare and educational system justification ($k = 22$, e.g., “I feel that universities earn the reputation they get”), status difference justification ($k = 8$, e.g., “In general, the difference between nurses and physicians is fair”) and belief in a just world ($k = 4$, e.g., “I am confident that justice always prevails over injustice”). Analysis revealed that the association between social identification and system justification was not affected by the type of system justification measurement, $F(6, 277) = 0.532$, $p = .784$.

Analysis of Substantive Moderator Variables

We entered status (high, intermediate, low and mixed, $k_s = 74, 40, 141$ and 29 respectively), and social identification (national, non-politicized subgroup, politicized subgroup, $k_s = 44, 216$ and 24 respectively) into a 4-level meta-regression analysis. Moderators were entered together so that the effect of each moderator was controlled for the effects of others.

Meta-regression analysis produced a significant general moderation effect, $F(5, 278) = 52.340, p < .0001$. Table 1 reports the estimated value of the relationship between system justification and social identification depending on the levels of moderators, and Figure 2 illustrates these trends. Status had a significant effect, $F(3, 278) = 5.072, p = .002$. More specifically, the association between system justification and identification was strongest for high-status samples, $Zr = 0.154, SE = 0.032, 95\% CI [0.090, 0.218]$. This relationship tended to decrease in size for intermediate-status samples, $Zr = 0.107, SE = 0.042, 95\% CI [0.024, 0.189]$ and mixed-status samples, $Zr = 0.095, SE = 0.047, 95\% CI [0.003, 0.188]$, and it was near to zero for low-status samples, $Zr = 0.032, SE = 0.026, 95\% CI [-0.018, 0.083]$. The difference between high- and low-status groups was significant ($\Delta Zr = 0.122, SE = 0.032, p < .001$), but no significant difference appeared for other pairwise comparisons (all $ps > .31$ with Holm adjustment).

The hierarchical level of identification also had a significant effect, $F(2, 278) = 115.822, p < .0001$. The strongest positive association was between system justification and national identification, $Zr = 0.339, SE = 0.034, 95\% CI [0.272; 0.406]$, while the association was positive but weak for subgroup non-politicized identification, $Zr = 0.074, SE = 0.028, 95\% CI [0.028, 0.121]$. For subgroup politicized identification, the association with system justification was negative and significant, $Zr = -0.332, SE =$

0.041, 95% CI [-0.412; -0.252]. All pairwise comparisons were significant (all $ps < .001$ with Holm adjustment). These moderators explained about 52.32% of the heterogeneity of the overall model, but the heterogeneity, although reduced, remained significant, $Q(278) = 3099.290, p < .0001$.

Table 1. Relationship between system justification and social identification depending on group status, and level of identification.

	<i>K</i>	<i>Zr</i>	<i>SE</i>	<i>p</i>	95% CI
Group status					
High	74	0.154	0.032	<.001	0.090; 0.218
Intermediate	40	0.107	0.042	.012	0.024; 0.189
Low	141	0.032	0.026	.209	-0.018; 0.083
Mixed	29	0.095	0.047	.043	0.003; 0.188
Level of identification					
National	44	0.339	0.034	<.001	0.272; 0.406
Non-politicized subgroup	216	0.074	0.024	.002	0.028; 0.121
Politicized subgroup	24	-0.332	0.041	<.001	-0.412; -0.252

The focus on low-status groups

The system justification within low-status groups is the aspect most difficult to understand since it is where the two main theories disagree. Consequently, understanding system justification within low-status groups holds significant relevance from both theoretical and practical perspectives.

The pooled effect size ($k = 141$) was not significant, $Zr = 0.070$, $SE = 0.033$, $t = 0.209$, $p = .835$, 95% CI $[-0.059, 0.073]$, $r = .070$, indicating that system justification and social identification (pooled) were not correlated in low-status groups (consistent with our analysis on the whole set of effect sizes). Heterogeneity was still high $Q(140) = 2267.204$, $p < .0001$, $I^2 = 93.77$, and mostly due to differences within studies (Level 2: $\sigma^2 = 0.038$, $\chi^2[1] = 401.852$, $p < .001$, $I^2 = 54.89$) and between papers (Level 4; $\sigma^2 = 0.027$, $\chi^2[1] = 13.105$, $p < .001$, $I^2 = 38.88$), rather than between samples (Level 3: $\sigma^2 < .001$, $\chi^2[1] < .001$, $p = .999$, $I^2 < .001$) or sampling error (Level 1, $I^2 = 6.23$). Again, the relationship between system justification and social identification might be moderated.

Our results showed that the identification-system justification relationship was moderated by the hierarchical level of social identification, $F(2, 135) = 65.338$, $p < .001$. More precisely, the association between hierarchical level of social identification and system justification was strongest when national identification ($k = 16$) was considered, $Zr = 0.332$, $SE = 0.048$, $p < .001$, 95% CI $[0.238, 0.426]$, but it became non-significant for subgroup non-politicized identification ($k = 108$), $Zr = 0.014$, $SE = 0.025$, $p = .585$, 95% CI $[-0.035, 0.063]$, and significant and negative for subgroup politicized identification ($k = 17$), $Zr = -0.350$, $SE = 0.045$, $p < .001$, 95% CI $[-0.439, -0.260]$. All pairwise comparisons were significant (all $ps < .001$ with Holm's correction). This moderator explained 54.98% of the heterogeneity of the overall model; accordingly, heterogeneity was highly reduced but it was still significant ($Q(138) = 1034.201$, $p < .001$, $I^2 = 87.13$).

Sensitivity Analysis

For the whole dataset, the analysis revealed that the overall effect size change was small (range = 0.089 to 0.104) when each single study was excluded from the analysis. Moreover, we identified 23 influential observations based on one or more of the indicators

that we considered. When these cases were excluded one at a time, meta-analytical results yielded similar results as the analysis in which extreme cases were not excluded, all Z_r ranged from 0.083 to 0.104, 95% CI [0.025 - 0.141; 0.048 - 0.160], and the difference of variance at Levels 2, 3 and 4 was low (Level 2: $\sigma^2 = 0.034 - 0.037$; Level 3: $\sigma^2 < 0.0001 - < 0.0001$; Level 4: $\sigma^2 = 0.032 - 0.042$).

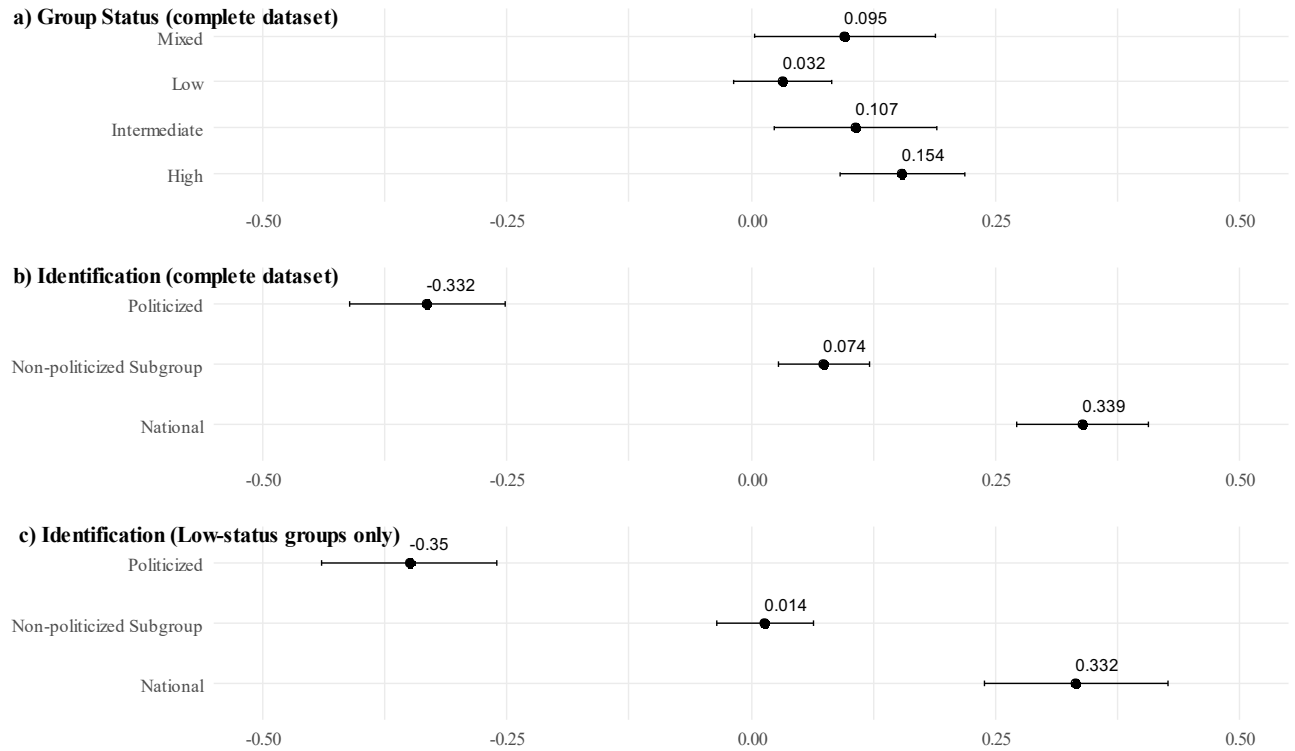
For the meta-analysis of low-status groups, again, our sensitivity analysis revealed that the pooled effect size had little change when each single study was excluded from the analysis (range $Z_r = -0.0005$ to 0.024). We detected 10 extreme cases. Also in this case, exclusion of these cases did not change the general results, as all Z_r ranged from -0.001 to 0.024, 95% CI [-0.068 - 0.066; -0.035 - 0.083] and the difference of variance at Levels 2, 3 and 4 was low (Level 2: $\sigma^2 = 0.030 - 0.038$; Level 3: $\sigma^2 < 0.0001 - < 0.0001$; Level 4: $\sigma^2 = 0.019 - 0.033$).

Publication Bias and Power

For the whole sample of studies, there was no significant effect when either the standard error, $b = -0.038$, $SE = 0.384$, $t = -0.099$, $p = .921$, 95% CI [-0.718, 0.794], or the reciprocal of the sample size, $b = -0.123$, $SE = 1.818$, $t = -0.068$, $p = .946$, 95% CI [-3.701, 3.455] were added as predictors. Similarly, in the low-status groups subset, there was no significant effect due to the standard error, $b = 0.480$, $SE = 0.589$, $t = 0.815$, $p = .417$, 95% CI [-0.685, 1.645], or the reciprocal of the sample size, $b = 0.929$, $SE = 2.691$, $t = 0.345$, $p = .731$, 95% CI [-4.394, 6.251].

The p-curve analysis revealed a right-skew ($p < .001$), indicating that a “true” effect was likely to be present in our data, and not flat ($p = .999$), indicating that power was sufficient. Accordingly, the observed power was 99% CI [99%, 99%]. Identical results were obtained for a p-curve analysis of the low-status group subset analysis, where the observed power was 99% 95% CI [99%, 99%].

Figure 2. Correlation between system justification and social identification depending on group status and level of identification.



Discussion

The aim of the meta-analysis was to estimate the association between system justification and social identification, with special attention to disadvantaged-status groups. Several works have tried to give meaning to system justification processes with different samples leading to mixed results. In light of the different theoretical approaches that have generated much research and from which diverse results have emerged, this meta-analytical synthesis attempts to reconcile at least some of the different findings in the literature. The results show that system justification seems to be positively related to social identity, although weakly. Moreover, results highlighted that the strength of the relationship between identification and system justification depends on the type of identity and group status. Indeed, the results showed that status moderated the association between identification and system justification. This association was stronger and positive for high-status groups and ethnic groups with higher social status (Whites and Asians versus Blacks, Latinos, Maoris, Pacific Islanders). This result is consistent with both SJT and SIMSA. In fact, the SJT assumes that ego, group and system justification are mutually congruent in order to protect a positive social identity and maintain the privileged status within the social system. SIMSA assumes that the positive association between system justification and identification for members of higher-status groups permits the support of a positive social identity, facilitates social comparisons and reflects a positive social reality. The relationship between identification and system justification was reduced in strength, but was still positive and significant, for the intermediate-status group. This evidence supports the hypothesis for which a downward positive comparison can help members of intermediate-status groups perceive a positive social identity (Caricati, 2018, Owuamalam et al., 2018, Rubin et al., 2023a, b). Finally, the relationship

between identification and system justification was close to zero for members of the low-status group. Results about low-status group will be discussed in more detail below.

Regarding the hierarchical level of social identification, the results showed that the association between social identification and system justification is positive especially when identification is on a superordinate level. This result seems in line with SIMSA expectations about a positive relationship between identification and social justification supported by the superordinate level of categorization (Rubin et al., 2023a, b; Jost et al., 2023). When considering subgroup identification, the relationship was near zero but still positive and significant. This result confirms the assumptions of SIMSA, which predicts a positive association between ingroup identification and system justification. This result is contrary to SJT, as SJT assumes a negative association between ingroup identification and system justification among low-status groups. When considering identification with a politicized subgroup, the relationship with system justification became negative, so the more people identify with a politicized subgroup, the less they justify the system. This seems to indicate that, in some cases, system justification is a function of group interest and content of social identity (e.g., politicized identity) supporting thus SIMSA's expectations.

Focus on the low-status group. Expectations about the association between system justification and social identification among low-status groups mark the strongest difference between SIMSA and SJT. It is notable that, in this case, the meta-analysis showed that the correlation with system justification was null for subordinate ingroup identification. The null results are inconsistent with SJT which predicts a negative association between ingroup identification and system justification (Jost et al., 2003). Results are however not supportive also for SIMSA which predicts a positive association in most cases. However, it is worth noting that SIMSA considers several contextual

variables as predictors of a positive association between ingroup identification and system justification (e.g., stability and legitimacy of social stratification). Given that these variables were not taken into account in this meta-analysis, it is hard to evaluate the extent to which results are or are not supportive for SIMSA.

The results for national identification are consistent with SIMSA and SJT, which predict that members of low-status groups will show a positive association between superordinate identification and system justification. Finally, the negative association between politicized identification and system justification is consistent with both SJT and SIMSA. However, the association between subgroup identification and system justification appear to be problematic for SJT and its supposed specific system justification motivation.

In sum, the meta-analysis provides several new information. First of all, we found that system justification is associated with social identification, and this suggests that considering the processes of system justification without taking into account the levels of identification might be misleading. This is even more evident when considering that the association between identification and system justification was stronger when overarching identification was considered supporting thus the SIMSA's idea that an extension of the ingroup allows disadvantaged people to embrace a system that reflects an inclusive identity. Overall, the results of this meta-analysis seem more in line with the assumptions of SIMSA that assume that the system justification is motivated by the need for positive social identity (Owuamalam et al., 2018, Rubin et al., 2023a, b). This also suggests that the assumption of an autonomous motivation for system justification (Jost & Banaji, 1994, 2004) may be problematic. Instead, present results suggest that system justification is linked, at least in part, to the group dimension of existence, in terms of identification and ingroup status.

Chapter Two

The dynamics of system justification among strongly disadvantaged group members

The first two studies were designed considering the key finding that emerged from the meta-analysis for which system justification appears to be related to (a) the ingroup status, that is, the position of the group within the social hierarchy and (b) the hierarchical level of considered social identification. In light of these findings, we firstly wondered how different disadvantaged status groups justify the system and whether the justification was related to comparison processes. In the first study, we wanted to analyze the natural occurrence of system justification in a disadvantaged status group. Through a qualitative study, we were interested in knowing whether a sexual minority (i.e., non-straight individuals) supported or not an unfair gender system. In the second study, conducted with a sample of migrants, we wanted to understand whether the difficulty of comparing the ingroup with a more disadvantaged status group could affect the system justification levels. Furthermore, in this latest study, we wanted to investigate whether supporting an inequitable system could affect levels of perceived well-being.

Study 1

Aim and Hypothesis

Study 1 is a qualitative study that aims to explore the process of comparison toward a more disadvantaged group by a sexual minority and the impact of comparison in relation to the support of a gender system. The literature related to system justification is mainly composed of quantitative studies investigating the association between group status and system justification (e.g., Caricati & Sollami, 2018; Jost & Burgess, 2000; Owuamalam et al., 2017). In contrast, there is still a lack of literature at the qualitative level with regard to what members of disadvantaged status groups think about the system that disadvantages them and why their social disadvantage is more or less justified. This study arose from the reworking of a qualitative study that had as its initial objective to study the relationship between binary views of gender and people's gender identity construction. A content analysis from the interviews was conducted. The textual material was examined in light of the new purpose of exploring the system justification among disadvantaged status groups with regard to gender orientation. We wanted to consider a sample of non-straight individuals as a group representing a sexual minority that in Italy is still heavily discriminated against. Indeed, Italy stands out in Europe as one of the few countries lacking specific legislation addressing discrimination and aggression against the LGBTQIA+ community. The sluggish progress in recognizing the rights of sexual minorities in Italian law can be attributed to influential religious and political ideologies

within the country (Benozzo, 2013; Callahan & Loscocco, 2023). In 2016, after a protracted political struggle, civil unions for same-sex couples were finally regulated. However, these unions did not grant equal rights, such as the ability to adopt children, compared to traditional marriages. Subsequently, in 2020, the "Zan" draft law was introduced to criminalize all forms of violence based on sex, gender, sexual orientation, gender identity, and disability (Callahan & Loscocco, 2023). Despite its noble intentions, the proposal faced staunch opposition from conservative-leaning parties and was not enacted into law. As of now, Italy lacks specific legislation supporting the rights of LGBTQIA+ individuals and penalizing discrimination and violence against minorities.

This study aimed to increase from a qualitative point of view the understanding of the reasons for the support of the system by members of disadvantaged status groups. More specifically, we wanted to study the reasons for support of an unfair system by a sample of homosexual women and men. We wanted to understand (a) whether and how sexual minorities justify the existing system and (b) the explanations sexual minorities spontaneously adopt to explain gender inequality and prejudice. The content analysis focused only on four thematic areas: homophobia, influence of society on gender differences, degree of agreement with pride parades, and the media's role in (dis)informing society.

Methodology

Participants

Nine semi-structured interviews with homosexual cisgender women and men were examined. The sample was recruited by the Piacenza-based Arcigay LAMBDA association. Participants learned about the research through a meeting of the association where the aims and methods of the research were explained so that volunteer participants

could be obtained. It was explained that participation was voluntary, included no rewards, and that anonymity would be guaranteed through the use of fictitious names. Twelve initial participants were recruited and contacted by telephone to schedule the interview. The final sample consisted of 9 participants because three participants did not consent to participate in the interview. 6 participants were cisgender men and 3 were cisgender women ($M_{age} = 27.78$, $SD = 5.14$, range = 20-35). 8 participants were homosexual, and one was bisexual. All the participants were cisgender.

The participants held diverse occupations, including roles like primary school teacher, doctor, engineer, shop assistant, university researcher, business consultant, student, shop owner, and one individual was without employment.

Interview procedure

Semi-structured interviews were conducted separately for each participant for a duration of 30-40 minutes. Six interviews were conducted by video call (with audio and video) via an online platform and three interviews were conducted in person. All interviews were conducted in July 2021 by the same interviewer. The study was conducted in accordance with the 1964 Declaration of Helsinki and ethical standards for the treatment of human subjects. Because the data collection was anonymous, involved adult participants, and no medical or other treatments were administered, no ethical approval was required for the study. Participants were then asked to read, sign, and return the informed consent prior to the interview. the interviewer reiterated that participation was voluntary, uncompensated, and anonymous, and that participants could leave the interview at any time. The interviews were audio-recorded and subsequently transcribed verbatim.

Analytic approach

The thematic analysis was conducted on the interview transcripts, following Braun and Clarke's (2006, 2022) approach. We initially familiarized ourselves with the transcribed material by reading the interviews individually. Next, interesting phrases were coded for each of the five areas identified, trying to be as precise as possible. We used the "data-driven" and "theory-driven" approach (Braun & Clarke, 2006), coding the sentences both for the meaning they seemed to express and for the meaning they had with respect to the issue of system justification. When the coding of the transcripts was finished, a group meeting was held in which the codes were compared. On this occasion, we were able to express and integrate the different points of view and to resolve potential disagreements through discussion.

Once we reached a consensus on coding, we looked for overarching themes by grouping the codes according to the shared theme that the codes would express. We used tables and maps to help us organize and recognize the themes and their contents. Next, we reviewed the themes to see if all potential themes were actually separate, and/or if some themes could be included within one another. We tried to follow the criteria of minimum intra-theme heterogeneity and maximum inter-theme heterogeneity by creating themes that could be a) constituted by meanings that were coherent with each other and b) clearly different from other themes. At the end of the procedure, the identified themes were named and described. For each area, the themes that emerged from the analysis are described below, using quotes to give an example of our results (all names are pseudonyms).

Results

The thematic survey found several themes for each area studied (Table 2).

Table 2. Investigated areas and corresponding questions and emerging themes.

Areas	Questions	Themes
<i>Homophobia</i>	“In your experience, is a homosexual person the victim of prejudice? If so, what kind of prejudice?” “In your opinion, is there anything that people (both heterosexuals and homosexuals) could do to reduce these prejudices?” “Do these prejudices influence yourself and your behavior? To what extent do you feel comfortable expressing yourself?”	Family and society as sources of prejudice. Causes and consequences. Need for outgroup’s support. Social and temporal comparisons. Coping strategies.
<i>Influence of society on gender differences</i>	“What influence does society have on your gender identity?”	Heteronormative society. Gender comparisons. Need for outgroup collaboration.
<i>Degree of agreement with pride parade</i>	“Do you agree or disagree with pride parades?”	Relevance of pride. Counterproductive excess. Temporal comparisons.
<i>The media's role in (dis)informing society</i>	“What was the way in which you acquired the most information regarding the LGBTQIA+ world? (e.g., school, family, internet and so on)” “In your opinion, do mass media still tend to censor information about the LGBTQIA+ world?”	Information transmitted by the media. Temporal comparisons.

Area 1: Homophobia

Participants' beliefs about prejudices were investigated through three questions: "In your experience, is a homosexual person a victim of prejudice? If so, what kind of prejudice?", "In your opinion, is there anything that people (both heterosexuals and non-straight) could do to reduce these prejudices?", "Do these prejudices influence yourself and your behavior? To what extent do you feel comfortable expressing yourself?". Five main themes emerged from this area based on participants' responses related to several episodes in which they felt discriminated against or were the target of prejudice.

Family and society as sources of prejudice

Many respondents affirmed that LGBTQIA+ individuals are often victims of discrimination and prejudice for which the main sources were society and family.

"Yes, the answer is yes because... there are so many [prejudices]. So, in my opinion a person, a homosexual male, faces a lot of prejudices, such as: "you're not a real man" "you're a girl" and "you're weak". I myself have been told, "you're a lesbian because men have let you down", "because you haven't met a man who is sensitive enough" and things like that ... and the prejudice that we women are tomboys, that we're missed males and we wish we were males." (Carla- self-identified as a woman)

On the other hand, sometimes discrimination can also occur directly and indirectly within the family. For example, some family's questions can hide indirect prejudice:

"Of course, LGBTQIA+ people face discrimination...from family, right? You know, uncle asking "do you have a girlfriend?" (Dario- self-identified as a man)

Other family's reactions could be more negative and discriminatory:

"In a time when I was quite sick, the first person I told was my mom. I told her, yes. She didn't immediately take it very well, she started making the usual remarks like: "it's a phase, it will pass"... so I said to her: "no, mum, it's not a phase, it's not a thing that just goes away." (Giacomo- self-identified as a man)

Some respondents reported that the lack of support from the family can rise to negative feelings such as guilt concerning parental figures and a consequent self-blame.

"A battle that was difficult: family prejudice, but also the concern that I might have brought pain to the family, right? Compared to my being, [I said to me] I don't want to make mom feel bad." (Dario- self-identified as a man)

Causes and consequences

Many respondents stated that prejudices are rooted in shared cultural beliefs about gender and sexuality. Respondents have reported being aware that they live in a heteronormative and patriarchal society that influences people's thinking, including family members. For example, some respondents said:

"Even ordinarily, there is a very methodical and patriarchal culture; people often absorb the ideas around them without really seeking truthful information." (Tania- self-identified as a woman)

The interviewees also say that prejudice can be caused by people's limited knowledge regarding the LGBTQIA+ community.

“...while heterosexual people, who may not know or are not aware of the existence of certain sexual orientations, may not pay attention to it or do not think it is necessary, or they do not afford due importance to raising awareness of public opinion on certain issues.” (Ludovico- self-identified as a man)

However, some interviewees said that prejudice can be due to homosexuals' behaviors that are seen as "excessive" by society. In this sense, they affirmed that the freedom of expression claimed by the LGBTQIA+ community can contribute to a wrong representation by generalizing the evaluation of homosexual people.

“If you see a person walking around with a purse, etc., then you start saying, «Look there, we can't give children to homosexual couples! Look how they go around, they're all like that» but my boyfriend and I aren't used to being like that, so why should I be considered who I am not?” (Ludovico- self-identified as a man)

Several consequences of prejudice emerged from respondents' conversations. Some respondents said that prejudice creates fear of being judged and consequently limits the freedom of self and couple expression. This limitation is also related to behaviors that are considered ordinary for heterosexual people (e.g., walking hand in hand), but are considered as problematic when enacted by homosexual people.

"I personally experience very badly what other people think about me. If I were sure [...] that I live in a world in which all people do not make negative judgments about possibly holding hands with my boyfriend, giving a kiss or things like that, then I would live very well..." (Ludovico- self-identified as a man)

Some respondents also emphasized that the prejudices that a person faces from an early age can have consequences. Negative attitudes can be internalized and affect a person's life, even in adulthood.

"The insults you receive as a child, and I'm not going to sit here and list them for you.... I got a lot of them, very varied and also very imaginative... and then they stick in your mind and they do more damage to you, even more than the real ones do, they keep echoing in your head and they affect you in everything you do, like in the way you walk, the way you talk." (Nando- self-identified as a man)

Need for outgroup's support

Some of the respondents reported that an increase in general knowledge about gender and sexuality can help to reduce prejudices and discrimination and also engage the outgroup (e.g., heterosexuals) in more active participation, improving the visibility of the minority group. The respondents highlighted the need for more support from the outgroup since there is a perceived lack of interest related to involvement in the fights of the LGBTQIA+ community.

"In my opinion, heterosexual people should have the courage to get to know us, to meet us ... because when the truth is known, prejudices fall." (Carla- self-identified as a woman)

Social and temporal Comparisons

When discussing prejudice, interviewees often refer to social comparison (e.g., other groups such as transsexual people) and temporal comparison (e.g., the past) to evaluate the degree to which prejudice is affecting LGBTQIA+ individuals.

"Also in terms of discrimination, in my opinion transsexuals and bisexuals suffer more than homosexuals." (Luciano- self-identified as a man)

"Compared to the past, in my opinion, gay people - I mean homosexual boys and homosexual girls - in my opinion, it is a little better... it also depends on the social context and family." (Giacomo- self-identified as a man)

Some participants referred also to cultural comparison. For example, some of them believe that freedom of expression in Italy is still limited as compared with other countries or cultures.

"If you go on holiday in Spain you see other things, you can have a different mood and experience the city in a different way; but here in Piacenza [an Italian city] for example, I cannot do even those small things like hold hands." (Giacomo- self-identified as a man)

Coping strategies

Another major theme that emerged about homophobia is related to coping strategies (Folkman & Lazarus, 1980). Problem-centered coping is one of the most frequently adopted ways to preserve one's freedom under conditions of expected discrimination.

"I try to not care [about what people think when she holds a partner's hand or kisses the female partner]. However, it is not so immediate, you have to make some effort,

however, it is important otherwise you start limiting who you are." (Tania - self-identified as a woman)

Individuals appear to handle prejudice by employing proactive strategies centered on self-affirmation, as opposed to defending the system and internalizing their disadvantaged status. As illustrated in the example, undertaking this task is challenging and demands psychological effort. Consequently, in certain instances, individuals might choose an avoidant coping strategy, particularly when seeking to redirect attention away from the issue. The following example demonstrates the use of a coping strategy that focuses on avoidance:

"I try to keep a low profile, so I don't encounter problems." (Giacomo- self-identified as a man)

The adoption of this coping strategy seems to be motivated by a desire to preserve social control and minimize uncertainty. Nevertheless, this endeavor appears to be more a result of conforming to prevailing social norms rather than a genuine belief in the fairness of the system.

Area 2: Influence of society on gender differences

The second area we investigated addresses the influence of society on gender identity. There was investigated with the question “What influence does society have on your gender identity?”

Heteronormative society

Respondents believe that the social expectations rooted in an established idea of a heteronormative and Catholic society constrain self-expression and produce fear of social judgment.

“We are influenced from an early age with what we play with, with what we have to wear and so on, it's something that should be corrected because I believe in maximum freedom of expression from an early age.” (Ludovico - self-identified as a man)

“There is just a baggage absorbed by the Catholic culture that wants bodies in a particular way, women have to behave in a certain way, and so for me all this, no, in my opinion, all this should be dismantled” (Tania - self-identified as a woman)

In this scenario, we observe a prominent and explicit emergence of social constraints. Tania expresses a belief that the social constraints associated with the Catholic culture need modification, yet she also acknowledges a perception of these constraints as enduring. The enduring cultural ideology significantly influences the process of socialization. In this context, the school is perceived as both the originator and potential remedy for the pervasive heteronormativity that is shared. Indeed, some respondents explicitly indicated school as a setting in which gender differences are learned, and at the same time other respondents believed that the school could be an important resource to reduce gender differences and teach respect for differences from an early age.

" You may have been born homosexual whereas you become homophobic. In the sense, that no child is [homophobic], so if from elementary school it was taught that love is love and there are no differences and that you have to respect everyone, people would not be like that." (Luciano - self-identified as a man)

Social comparisons

Some male respondents made gender comparisons to point out that although they are members of a disadvantaged group (homosexuals), they still consider themselves to be members of a relatively privileged group as compared with women.

“Although I am homosexual, I am a man so I cannot complain about anything because I have nothing to demand, I realize that many times things are granted to me. [...] It is bad to say, but it is true. Unfortunately, it is like that. It is like that. I’m not saying that because I have this little thing of homosexuality then I don’t have the preferential way, but yes I realize that being a girl or a woman or anyway someone who does not correspond to the cis-straight man is difficult.” (Carlo - self-identified as a man)

Moreover, the interviewees used a cross-cultural comparison to underline that Italy still has many steps to take regarding the full achievement of LGBTQA+ rights.

“Having also lived in Spain, I find myself - here in Italy - in a quite backward society, so in my opinion it influences gender identity a lot [...]. In my opinion, we [Italian] should look at the examples of countries where there are none [gender differences], therefore the countries of Northern Europe, where there are lesbian women who are even Prime Ministers, like Iceland.” (Carla - self-identified as a woman)

Need for outgroup collaboration

Considering society's influence on gender, some respondents also stressed the importance of having support from heterosexual people.

“We really need the presence of heterosexual people during our protests because it is an incredible force. [...] It's always a thing of a social impact. You don't listen so much to

those who are different, but you are more likely to listen to those who are similar to you, and so it's a social impact." (Nando- self-identified as a man)

Area 3: Degree of agreement with pride parade

There were asked: "Do you agree or disagree with pride parades?". According to participants' answers, pride is a divisive issue because it contributes to increasing minority group awareness but, at the same time, a public expression of counter-normative gender and sexual orientation might result in increased discrimination and social rejection.

Relevance of pride

Some of the participants expressed a strong desire to take part in the pride parade, but at the same time, they fear negative judgments from society.

"I was one of those people who said, I don't recognize myself in pride because it's a wrong image and to everyone who wanted to go I would say 'No don't go, don't go to the pride we are not like that!' but why? [...] I was very afraid to expose myself, not so much as a homosexual but just as a person. You know fear makes you talk badly about things that you actually want very much." (Carlo- self-identified as a man)

On the other hand, the formative and identity value that the pride parade represents is recognized by the interviewees.

"It is, I must acknowledge it. I actually realize the strong formative value that pride can have. [...] It can help with identity formation, consolidation, and confirmation of its own sexual orientation; so I am in favor of this dynamic." (Carlo - self-identified as a man)

Some of the participants expressed positive opinions concerning pride mostly about the extravagant ways used to claim rights during the pride parade.

"This makes me smile because since you are protesting, excess becomes part of the protest. The movement was born to emerge from obscurity, to come out of hiding completely as people and to be who you really are, so the protest is that and inherent in that is wanting to show yourself as much as you want to." (Monica - self-identified as a woman)

Counterproductive excess

Other interviewees believed that the excess used in protests is counterproductive to the purposes.

"If you have to try to change the minds of people who are against it, you can't do these over-the-top things, I don't think that's the best way. For example, if there is a person who is against gay adoption you can't go dressed as a flamingo or naked to convince them because that will make them even more against it, in my opinion." (Luciano - self-identified as a man)

Some interviewees expressed explicit disagreement about the "blasphemous" expressions that are sometimes used at the pride parade.

"We can claim our rights without falling into excesses. [...] I don't find dressing almost naked so excessive, let me say ... but if I could remove something, I'd take away the disrespect, even towards religious symbols." (Carla - self-identified as a woman)

Temporal Comparisons

Also in this area, a comparison reference to the past emerged with respect to the evolution over the years of the pride parade, and the increased participation in it.

"Twenty years ago, no one would have had the courage to come out like this. " (Carla - self-identified as a woman)

Area 4: The media's role in (dis)informing society

In the last area we investigated, these questions were asked: "How did you acquire the most information regarding the LGBTQIA+ world? (e.g., school, family, the Internet and so on)" and "In your opinion, does mass media still tend to censor information about the LGBTQIA+ world?"

Information transmitted by the media

Some interviewees shared the view that homosexuality is considered a trend by the media or used as a conversation topic and not to inform and educate.

"I don't know how to put it... to be trendy you have to include a gay couple even in the family circle, so [...] I think it's because it's trendy, I don't know how to tell you. Yes, it's starting to be the fashion, I think that's why." (Carla - self-identified as a woman)

Another description of media information is that there are stereotyped, both directly and indirectly.

“There are also stereotypes in how LGBT people represent themselves because there aren’t only white middle-class males, there are blacks, there are the poor, the rich ones, there are trans people, there are those who fade and have different experiences throughout their life.” (Dario - self-identified as a man)

According to the participants, information shared by the media differs according to the target audience and the political alignments to which the media refers.

"If we talk about newspapers and television you have to look at the political orientation, [...] we can say it clearly, left-wing newspapers and television perhaps tend to provide more information and more news regarding the LGBT world, while the right-wing ones tend to give less, much less or even give news against it." (Ludovico - self-identified as a man)

Temporal Comparisons

Many interviewees pointed to an evolution of the mass media, through a comparison with the sources of information conveyed in the past. The Internet and new mass media have made it easier to allow information to be circulated with more freedom and less censorship.

“The Internet has contributed so much to the information about this world also from the point of view of children and young people. Nowadays, we often hear that homosexuality has become a bit of a trend; I don't believe that at all, I simply believe

that since information and awareness of this phenomenon and this world have increased, in turn then the voices coming out of this world also increase. Perhaps those that once tended to hide, now tend to come out instead.” (Ludovico- self-identified as a man)

Some respondents opposed traditional formats with new formats, highlighting that the latter dedicate much more attention to LGBTQIA+ themes:

“Think about Netflix, half of the products are LGBT-themed, but not only the series that show you the love story but also documentaries on the history of the movement, there are so many...but the national networks are already different...Rai [Italian State TV] is already different.” (Nando - self-identified as a man)

Most of the respondents stressed the role of new media in allowing them to be informed about LGBTQIA+ themes.

“For example, on Twitter, Instagram, by following the pages they talk about it sometimes... if you follow these pages, automatically when the news appears, there are all the people who comment and put likes, for example, more and more people talk about it.” (Luciano - self-identified as a man)

Discussion

The study aimed to qualitatively investigate system justification among members of a particularly disadvantaged status group using semi-structured interviews. The present study tried to consider the opinions about the existing social system among a sample of non-straight individuals. To investigate the process of justification, we have focused our attention on four areas: (a) Homophobia, (b) the influence of society on gender differences, (c) the degree of agreement with pride parades, (d) the media's role in (dis)informing society.

The results of the thematic analysis highlighted the presence of both specific themes and themes that were common to several areas. To begin with, we must acknowledge that we observed very few examples of explicit system justification, in other words, the clear conviction that the current system is fair and that homophobia is justified.

The only evidence of system justification appeared when some participants indicated that prejudice against homosexuals could be due to homosexuals' excessive behaviors. In this sense, some of the participants recognized that prejudice might be to some extent justified because some excessive behaviors could lead people to generalize some negative attributes to all homosexual communities. This is an occasion of victim blame from the disadvantaged against themselves (e.g., ingroup derogation) which has been associated with system justification (Jost et al., 2004).

No other direct evidence of system justification has been observed. On the contrary, our participants appeared to be aware of the fact that homophobia exists, that it is unjustified, and that, mostly, it comes from heteronormative culture and institutions such as the family, school and the Church. This is also noticeable when participants talk about media communication, where they observe distinctively stereotypical portrayals of non-straight individuals or an approach categorizing homosexuality through a "consumer" lens,

contingent on the political orientation of the media, particularly traditional outlets like the press. Accordingly, in discussing homophobia, our participants referenced the coping strategies that they use to approach or avoid prejudice, that is the way they acknowledge the need to manage prejudice in everyday life. The heteronormative and patriarchal arrangement of society is also recognized as a cause of discrimination against minorities in terms of gender and sexual orientation. This point of view is also mirrored in some media communication in which participants recognized strongly stereotyped views of homosexuals or a “consumer” approach to homosexuality, depending on the political alignment of the media (especially traditional media such as the press). In short, our participants did not appear to justify the system, rather they appeared to blame the system for their past and present condition. Interestingly, an emerging theme that was common to all investigated areas was the comparison, either temporal or intergroup. Indeed, in all four areas, participants referred to comparison with a) an even more disadvantaged status group (e.g., trans* individuals), b) other cultural contexts and c) the past temporal condition. For example, when participants talked about prejudice, they often referred to groups that “suffer more than homosexual people” or to nations that grant homosexuals more freedoms and rights than Italy. Also, the temporal comparison was often reported to describe the fact that, for non-straight individuals, prior conditions were worse than today. Interestingly, the interviewees reduced their feeling of being the target of discrimination when they had the possibility to compare their existing condition with a) supposedly more disadvantaged people (e.g., trans* individuals) or b) different times (e.g., the past). Actually, the reference to a more disadvantaged-status group suggests that respondents appeared to perceive themselves as members of an intermediate-status group, highlighting that a positive comparison with a more stigmatized group (e.g., trans* individuals) is a mechanism that allows satisfying the need for a positive social identity.

Similar comparisons were also made when participants discussed gender differences, pride parades and media communication. This indicates that the participants were cognizant of the ongoing evolution in the status of non-straight individuals, with certain changes being observed compared to the past (e.g., they perceived worse and better alternatives to the existing social reality). They seem to describe a situation in which status differences between homosexuals and heterosexuals are losing legitimacy and stability. In the area of media communication, in particular, participants recognized the most evident change: they explicitly indicated new media (such as social media and streaming networks) as places in which communication about, and representation of, homosexuality has evolved from a stigmatizing to a supportive one. In this sense, they seem to have some hope that things could improve in the future. Another common theme is the need for heterosexual engagement. When participants discussed homophobia and heteronormative society, they clearly recognize the support from the outgroup as a crucial requirement for a successful attempt to change the existing system. This seems to highlight the idea that social change may also occur through social influence from the minority to the majority (e.g., Moscovici, 1976, 1980) challenging the stability of social constraints. In summary, our interviews seem to suggest that the participants were not likely to believe that the system in which they live is fair and legitimate. On the contrary, we noted several occurrences of social identity processes, such as temporal and social comparison, which seem to supply participants with some hope for the future (at least, as compared with the past). Thus, our results seem to be more in line with the SIMSA (Rubin et al., 2023a) explanation of system justification: our participants never referred to a need to justify; rather, they were aware of the pervasiveness of prejudice and heteronormativity (e.g., social constraints), the need (and desire) to change the existing system, and often engaged in social comparisons.

Limits and future directions

Study 1 involved a small number of participants which does not allow us to generalize the results. In addition, we used interviews that had a different initial focus than the topic of system justification. Future work could consider qualitative approaches focusing on system justification processes considering also other social groups, even more stigmatized and disadvantaged such as trans* individuals.

Study 2

Aim and Hypothesis

In this study, we focused on the processes of legitimizing among a particularly vulnerable social category such as migrants, refugees and asylum seekers. SJT (Jost and Banaji, 1994, 2004) claims that people are motivated to perceive the social systems in which they live as fair, just and legitimate so an inequitable but predictable system is considered preferable to one in which it is unclear for people what is to be expected (Jost & Hunyady, 2005). According to SJT, it is possible to expect that the stronger the group status disadvantaged, the higher the system justification will be. According to SJT, the system justification by members of disadvantaged status groups is induced by ideological dissonance and is most evident when group and personal interests are weak (Jost et al., 2003, 2004). Owuamalam et al, (2016, see also Rubin et al., 2023a) have criticized this assumption on the grounds that ideological dissonance between group and system might be expected to occur when both aspects are relevant to individuals, that is to say when identification is high and strongly conflicts with system justification motivation. However, according to Jost (2023) once dissonance is developed, the members of disadvantaged status groups must choose which cognition is more relevant, between recognizing that they belong to a low-status group or perceiving that they live in a just system. For this reason, according to SJT, disadvantaged status group members would show a strong and paradoxical form of system justification (compared to advantaged status group members) when they are weakly identified with the ingroup (Jost et al., 2003, 2004, 2023). Contrary, SIMSA (Owuamalam et al., 2018, Rubin et al., 2023a, b) led to the expectation that severely disadvantaged status groups should be likely to show low

levels of system support as they find it more difficult to compare favorably with a more disadvantaged group.

Furthermore, this study gives us also the opportunity to investigate the relationship between system justification and well-being among the disadvantaged. Indeed, given that it has been suggested that justify the existing system could function as palliative helping people to rationalize existing inequality (especially for low-status groups), this should be even more visible among members of severely disadvantaged status groups. Accordingly, SJT advanced the hypothesis that rationalizing inequality has a palliative effect helping people to reach better health and high well-being (Jost & Hunyady, 2003). A few studies (Osborne & Sibley, 2013; Sengupta et al., 2017; O'Brien & Major, 2005, Suppes et al., 2019; Napier et al., 2020) have supplied support for the hypothesis of the palliative function of system justification, showing that supporting the social system has the effect of boosting self-esteem, improving life satisfaction, and reducing anxiety. Bahamondes and colleagues (2019) carried out two studies on representative New Zealand national data showing that the palliative effect was stronger for participants who had experienced discrimination related to membership in their ethnic group. These showed results in line with other nations (see Godfrey et al., 2019; Suppes et al., 2019 for the United States and Bahamondes-Correa, 2016; Vargas-Salfate, 2017 for Chile). Godfrey et al. (2019) investigated the palliative hypothesis longitudinally and showed that in the short term there is a significant and positive association between the system justification and self-esteem levels in disadvantaged adolescents, but this relationship reverses when it is analyzed in the long run.

Based on argument considered thus far, we considered contrasting hypotheses based on SJT and SIMSA. According to the SJT, highly disadvantaged status members should show a high level of support for the system because of the dissonance that comes

from group and system motivation that conflicts with each other. Social inequality can thus create a strong ideological dissonance for members of disadvantaged status groups and appears more evident when ingroup identification is weak (Jost et al., 2003).

Thus, SJT leads to expect that, among groups with severe disadvantage:

H1a: system justification would be stronger because the stronger ideological dissonance and the need to rationalizing the status-quo

H2a: as a palliative effect, system justification would be related to well-being especially when ingroup identification is low.

SIMSA presented alternative expectation about system justification among strongly disadvantaged group, that are linked to group interests. While SIMSA does not dispute that rationalizing the status quo could be beneficial for the disadvantaged's well-being, it expects that system justification would be linked to group and individual interests. For example, considering strongly disadvantaged status group members, SIMSA expects that they would have some difficulties in finding ways to justify the system because they are less likely to perform downward comparisons. However, they could justify the system to the extent that they identify with an overarching group such as human identity and with the ingroup of migrants.

With respect to well-being, social identity approach highlights that social identity are determinant of people's health (Haslam et al., 2018). By supplying people with the basis of social support, social integration as well as meaning and direction (Haslam et al., 2012), social identities are expected to increase well-being of people.

Accordingly, the social identity approach leads to the expectation that:

H1b: members of a group with severe disadvantages would show low level of system justification due to the difficulty of making downward comparison;

H2b: social identification would be positively linked to well-being and system justification

H3: system justification would mediate the relationship between social identification and well-being.

Methodology

Research design and participants

Historically, nations like Italy, Germany, or Ireland have been accustomed to receiving migratory flows. We chose to conduct this research in Spain, and more specifically in Huelva, because in Spain this phenomenon has experienced a significant increase. While the percentage of immigrants was below 5% at the beginning of the 21st century, it now stands at around 15%, marking an increase of over 10 percentage points or approximately four million people, a situation unprecedented in Spanish history (Monras, 2023).

Study 2 was a correlational study carried out through the collaboration of the Spanish Red Cross. The initial sample consisted of 104 participants, to whom a questionnaire was administered between April and July 2022 in Huelva (Spain). Seven participants were excluded from the analysis because they had not completed the entire questionnaire. Thus, the analyzed sample consisted of 97 people, including 22 women and 75 men. The mean age was 32.30 years ($SD = 10.22$, range = 18-59). We have developed a questionnaire in three different languages, English, Spanish and French, in order to be able to administer the questionnaire to more users with different origins. The most commonly used version was Spanish, followed by French, while the questionnaire in the English version was never administered. The questionnaires were administered to

immigrants, asylum seekers and refugees living in camps (N = 85) and facilities in the center of Huelva (N = 12). The questionnaires were administered both on paper and online using a tablet provided by the Red Cross. However, 90 % of the questionnaires were filled in by hand.

Measures

For the full list of items see the Appendix.

Measures of system justification. System justification was operationalized in different ways according to the literature (For a full list of items see the Appendix).

Economic system justification. We used 7 items taken from Jost and Thompson's (2000) scale about the meritocracy dimension. Some examples of items are "If people work hard, they almost always get what they want" and "Most people who don't get ahead in our society should not blame the system; they have only themselves to blame". Participants were asked to indicate the degree of agreement on a 7-point Likert scale from 1 ("completely disagree") to 7 ("completely agree"). Reliability was poor ($\alpha = .45$)

Just world belief scale. We used the Dalbert et al. (1987) scale considering only three items out of six. Participants had to indicate their agreement on a 7-point Likert scale from 1 ("completely disagree") to 7 ("completely agree") to the following statements "I am confident that justice always prevails over injustice", "I believe that, by and large, people get what they deserve" and "I am convinced that in the long run people will be compensated for injustices". Reliability was acceptable ($\alpha = .69$).

Social dominance orientation. The social dominance orientation scale (SDO, Sidanius & Pratto, 2001) was used, in its shortened 8-item version in which participants indicated their disagreement or agreement on a 7-point Likert scale from 1 (“completely disagree”) to 7 (“completely agree”) to statements such as “It is probably a good thing that certain groups are at the top and other groups are at the bottom” and “Superior groups should dominate inferior groups”. Reliability was poor ($\alpha = .55$).

Justice beliefs about global inequality. Reese, Proch & Finn's (2014) scale was administered. Five items were used to investigate what people thought about justice and inequality globally and how it is perceived by them. We asked people to respond on a 7-point Likert scale (1 = “completely disagree”, 7 = “completely agree”) to statements such as “I think it is justified that people from developed countries have better chances in life than people from developing countries” and “Overall, I think that the inequality between developed and developing countries is somewhat just”. Reliability was poor ($\alpha = .58$).

Social identification

We used the Inclusion of Other in Self scale (Aron et al., 1992; Schubert & Otten, 2002), presented in two versions, one relating to identification as a migrant (i.e., ingroup identification) while the other one relating to identification as a citizen of the world (i.e., overarching identification). Each version consisted of a graphic with 7 pairs of circles representing different degrees of proximity/overlap, between "Me" and "Migrants" in the first case between "Me" and "people from the rest of the world" in the second. Degrees of overlap ranged from "do not coincide" to "almost completely coincide."

Measures of well-being

Also in this case, well-being was operationalized in different ways in order to assess different aspects which contribute to subjective health.

Self-esteem. The Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) has been used. It is one of the most frequently used scales to assess self-esteem. The RSES consists of 10 items with scores ranging from 1 (“very much in agreement”) to 4 (“very much in disagreement”). Rosenberg created the RSES as a unidimensional measure of self-esteem; the basic perspective of the scale defines self-esteem as a positive or negative attitude toward oneself. Examples of items include: “On the whole, I am satisfied with myself” and “I certainly feel useless at times”. Reliability was good ($\alpha = .80$).

Distress. The short version of the Depression Anxiety & Stress scale (DASS-9, Yosoff, 2013) was administered, which includes 9 items that ask participants to report the extent to which, in the past 7 days, they have experienced some symptomatic manifestations using a scale ranging from 0 (never happened to me) to 3 (almost always happened to me). Some examples of items are: “I found it difficult to work up the initiative to do things” and “I was unable to become enthusiastic about anything”. Reliability was good ($\alpha = .70$).

Self-efficacy. Schwarzer & Jerusalem's (1995) General Self-efficacy Scale (GSE), consisting of ten items was administered. The scale assessed a person's belief in his or her ability to act in new or difficult situations, cope with obstacles, or handle impediments associated with them. Participants were asked to respond on a 4-point Likert scale (1 = “completely false”, 4 = “completely true”) to statements such as “I can always manage to solve difficult problems if I try hard enough” and “It is easy for me to stick to my aims and accomplish my goals”. Reliability was excellent ($\alpha = .90$).

Stigma. The Internalized Stigma of Mental Illness (ISIM, Ritsher et al., 2003) is widely used to examine internalized stigma among people with mental disorders. However, this scale has already been used by Lindheimer et al. (2020) on a refugee sample. The ISMI scale includes 29 items divided into five subscales that assess the subjective experience of stigma with reference to alienation, acceptance of stereotypes, experience of discrimination, social withdrawal, and resistance to stigma. For this study, only 12 items were selected (e.g., “Because I’m a migrant, I need others to make most decisions for me” and “I am disappointed in myself for being a migrant”) and adapted to refer to migrant status rather than mental illness. Each item was rated on a 4-point Likert scale from 1 (“strongly disagree”) to 4 (“strongly agree”). Reliability was acceptable ($\alpha = .69$).

Results

Psychometric assessment of measures

In light of the low reliability of the economic system justification scale ($\alpha = .45$), we conducted a factor analysis of the scale, through which it was possible to determine two dimensions. Looking at item loadings, one item (“Most people who don’t get ahead in our society should not blame the system; they have only themselves to blame.”) showed no substantial loading on dimensions and was then excluded. The first dimension grouped items related to meritocracy and reward for an individual’s efforts (e.g., “If people work hard, they almost always get what they want” and “Economic positions are legitimate reflections of people’s achievements”). The second dimension grouped items related to the justification of hierarchy among groups (e.g., “It is unfair to have an economic system which produces extreme wealth and extreme poverty at the same time” and “Economic

differences in the society reflect an illegitimate distribution of resources”). The first dimension reported acceptable reliability ($\alpha = .61$) while the second dimension reported poor reliability ($\alpha = .56$).

We also conducted a factor analysis for the social dominance orientation scale. Again, the items were distributed on two dimensions: Dominance among groups (e.g., “Superior groups should dominate inferior groups” and “It is probably a good thing that certain groups are at the top and other groups are at the bottom”) and anti-egalitarianism (e.g., “It would be good if all groups could be equal” and “All groups should be given an equal chance in life”). However, the anti-egalitarianism dimension had low reliability ($\alpha = .55$) and one item did not contribute substantially to that dimension. This might be due to the fact that items in this dimension were reversed. In order to reduce measurement problems, we considered only the inter-group dominance dimension which showed an acceptable reliability ($\alpha = .63$).

Regarding Justice beliefs global inequality scale, the factorial analysis showed a low reliability ($\alpha = .34$) so this led us to considering only the first two items “I think it is justified that people from developed countries have better chances in life than people from developing countries” and “Overall, I think that the inequality between developed and developing countries is somewhat just” which showed a good reliability ($\alpha = .77$).

Zero-order correlations among all measures

We performed a zero-order correlation considering all the scales we used (Table 3). The analysis showed that ingroup identification was positively related with all the measure except negatively with the stigma and distress. The meritocracy justification was positively related to global inequality, just world beliefs scale and self-efficacy. The

justification of the hierarchy was positively associated with self-esteem while was negatively related with distress and stigma. Social dominance orientation correlated positively with global inequality and just world beliefs, self-esteem and negatively with stigma. Stigma was also negatively correlated with global inequality, just world beliefs and self-esteem. Moreover, descriptive analysis reveals that participants show a moderate level of meritocracy justification ($M = 3.93$, $SD = 1.80$) and a low level of hierarchy justification ($M = 2.38$, $SD = 1.41$). As for social dominance orientation, the scale has moderate levels ($M = 3.55$, $SD = 1.60$) while moderate scores have emerged for global inequality ($M = 4.01$, $SD = 2.06$) and belief in a just world ($M = 4.28$, $SD = 1.84$). These results appear to be more in line with SIMSA than SJT (Hypothesis 1b and 1a) showing that system justification was not strong among participants. However, it is worth noting that results also indicated that scores linked to support for individual effort (i.e., meritocracy and JWB) were relatively high indicating that our participants were relatively likely to believe that individual efforts are rewarded.

Table 3. Zero-order correlation of all the measures.

	1	2	3	4	5	6	7	8	9	10	11
1. Meritocracy justification											
2. Hierarchy justification	.04										
3. Social dominance orientation	.04	.19									
4. Global Inequality	.26**	.13	.30**								
5. Just World Beliefs	.49***	.01	.22*	.23*							
6. Self-esteem	-.04	.32**	.24*	.18	-.06						
7. Distress	-.19	-.24*	-.13	-.09	-.12	-.06					
8. Self-efficacy	.40***	.04	.10	.12	.48***	.07	.22*				
9. Stigma	-.04	-.20*	-.25*	-.20*	-.26*	-.60***	.15	-.09			
10. Ingroup identity	.42***	.24*	.46***	.37***	.42***	.22*	-.35***	.22*	-.37***		
11. Overarching identity	.02	.10	.15	-.05	.26*	.02	-.04	.15	.08	.37***	-
<i>M</i>	3.93	2.38	3.55	4.01	4.28	2.61	2.20	3.26	2.36	3.59	3.60
<i>SD</i>	1.80	1.41	1.60	2.06	1.84	0.70	0.55	0.62	0.62	2.26	2.40

In order to reduce system-justifying beliefs, we performed a second-order factor analysis on the composite score of the system justification measure. Results indicated that system-justifying beliefs could be reduced to two kinds of measures: Meritocratic beliefs (grouping JWB and justification of meritocracy) and legitimacy of existing hierarchy (grouping SDO, global inequality and economic justification of inequality). Moreover, with the same aim to reduce the considered dimensions, we collapse stigma and self-efficacy (which were strongly and negatively correlated, $r = -.60$, $p < .001$) to form a single indicator of social well-being.

Zero-order correlations among reduced scales

We then performed a zero-order correlational analysis taking into consideration the new scores on the reduced scales (Table 4). Overarching identification correlated significantly only with ingroup identification while showed no significant correlation with the measures of system justification and well-being. Hypothesis 2b, which expected to find a positive and significant correlation between identification, system justification and well-being, was only partially confirmed. Indeed, ingroup identification, but not superordinate identification, was positively and significantly related to both support of hierarchy and support for meritocracy. The identification as a migrant was positively associated with self-efficacy and social well-being, while was negatively related to distress. Support for hierarchy correlates positively with social well-being and negatively with distress, while the meritocracy beliefs scale has a positive and significant correlation with self-efficacy only. On the whole, these results appear to be more in line with SIMSA's expectations than with SJT's expectations.

Table 4. Zero-order correlations among the reduced scales.

	1	2	3	4	5	6
1. Support for hierarchy	-					
2. Support for meritocracy	0.23*	-				
3. Social Well-Being	0.38***	0.07	-			
4. Distress	-0.22*	-0.18	-0.12	-		
5. Self-efficacy	0.12	0.51***	0.09	0.22*	-	
6. Ingroup Identification	0.52***	0.49***	0.33***	-0.35***	0.22*	-
7. Overarching Identification	0.10	0.16	-0.03	-0.04	0.15	0.37***

* $p < .05$; ** $p < .01$; *** $p < .001$. $N = 97$

Testing the relation between ingroup identification, system justification and well-being

In order to investigate SJT expectation, we performed a path analysis in which each dimension of well-being was predicted by system justification dimensions, identification with migrant and interaction between system justification and identification. Hypothesis from SJT would lead to expect a significant interaction between identification and system justification. Results are reported in Table 5. As indicated, we did not find any evidence of significant interaction, and thus the hypothesis that the palliative effect of system justification would be strong when ingroup interest are low was not supported (Hypothesis 2a).

Table 5. Interaction between ingroup identification, system justification and well-being

	<i>b</i>	<i>SE</i>	<i>z</i>	<i>p</i>	<i>beta</i>
Social wellbeing					
Support for meritocracy	-0.139	0.104	-1.331	0.183	-0.134
Migrant identification	0.087	0.048	1.804	0.071	0.221
Support for hierarchy	0.387	0.149	2.596	0.009	0.296
Interaction meritocracy x id	0.053	0.051	1.045	0.296	0.095
Interaction hierarchy x id	-0.013	0.064	-0.199	0.842	-0.021
Distress					
Support for meritocracy	-0.012	0.061	-0.200	0.841	-0.019
Migrant identification	-0.080	0.031	-2.584	0.010	-0.329
Support for hierarchy	-0.036	0.089	-0.402	0.688	-0.044
Interaction meritocracy x id	0.018	0.032	0.561	0.575	0.052
Interaction hierarchy x id	0.005	0.037	0.129	0.897	0.013
Self-efficacy					
Support for meritocracy	0.391	0.064	6.134	0.000	0.545
Migrant identification	-0.027	0.037	-0.742	0.458	-0.099
Support for hierarchy	0.045	0.090	0.498	0.618	0.050
Interaction meritocracy x id	0.016	0.035	0.476	0.634	0.042
Interaction hierarchy x id	0.063	0.034	1.832	0.067	0.146

Note: id: identification with migrant group.

In order to investigate Hypothesis 3 (from SIMSA), we tested a model using path analysis approach in which identification predicts the system justification beliefs (meritocracy and

legitimization of the hierarchy) which in turn predicts social well-being, distress and self-efficacy (Table 6, Figure 3). The results showed that ingroup identification predicted positively social well-being ($b = .24, p = .04$) and negatively distress ($b = -.31, p < .01$), but no significant effect appeared for self-efficacy ($b = -.05, p = .66$). Analyzing the indirect effect, results reveal that legitimacy of the hierarchy significantly mediated the relationship between ingroup identification and social wellbeing ($b = .15, p < .01$). However, no significantly mediated effect appears between identification and distress ($b = -.03, p = .61$) and self-efficacy ($b = .02, p = .78$). The meritocratic beliefs significantly mediate the relationship between ingroup identification and self-efficacy ($b = .26, p < .00$) but meritocracy didn't mediate the relationship between ingroup identification and social well-being ($b = -.06, p = .29$) and between identification and distress ($b = -.01, p = .91$).

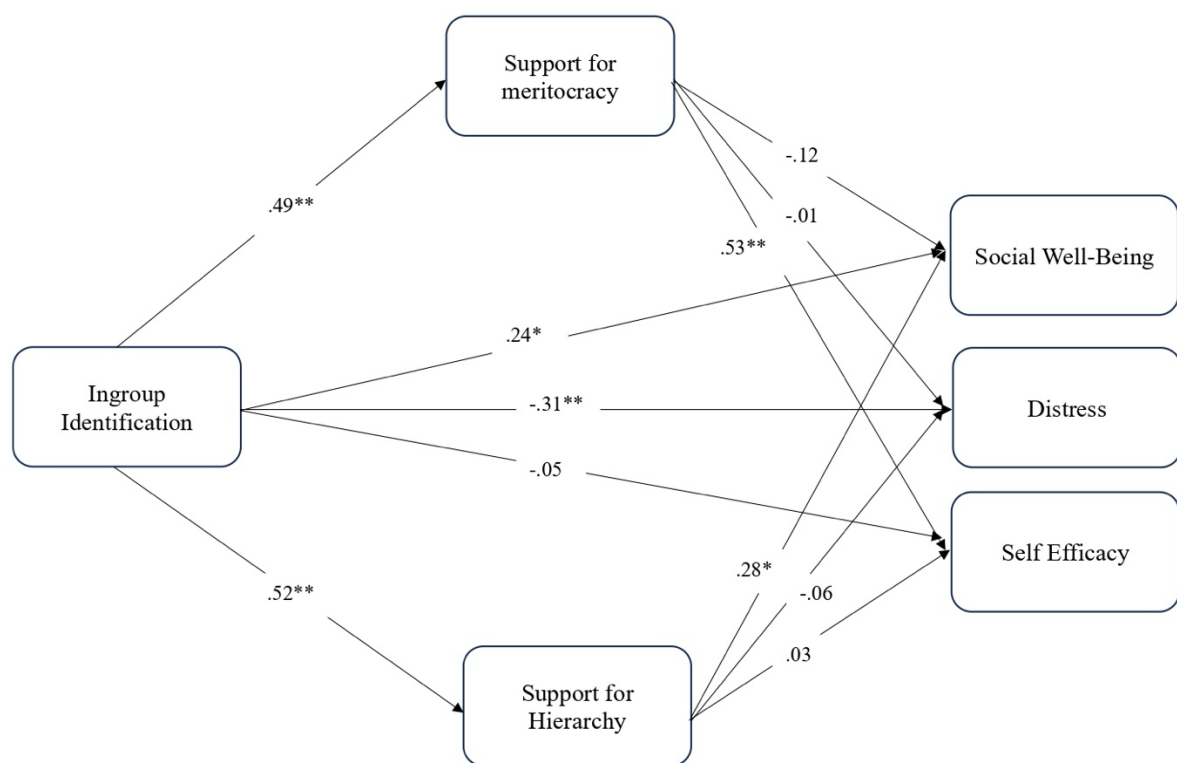
Table 6. Estimates from path analysis.

	<i>b</i>	<i>SE</i>	<i>p</i>	95% <i>CI</i> <i>low</i>	95% <i>CI</i> <i>high</i>	β
Distress						
Support for meritocracy	-0.008	0.069	0.909	-0.144	0.128	-0.012
Ingroup Identification	-0.076	0.030	0.011	-0.134	-0.017	-0.312
Support for hierarchy	-0.045	0.089	0.611	-0.220	0.130	-0.057
Self-efficacy						
Support for meritocracy	0.380	0.071	< .001	0.240	0.520	0.530
Ingroup Identification	-0.014	0.031	0.656	-0.074	0.047	-0.050
Support for hierarchy	0.026	0.092	0.776	-0.155	0.207	0.029
Social Well-being						
Support for meritocracy	-0.119	0.109	0.277	-0.334	0.095	-0.115
Ingroup Identification	0.095	0.047	0.045	0.002	0.188	0.240
Support for hierarchy	0.362	0.141	0.010	0.085	0.639	0.277
Support for hierarchy						
Ingroup Identification	0.159	0.026	< .001	0.107	0.210	0.524
Support for meritocracy						
Ingroup Identification	0.185	0.034	< .001	0.119	0.251	0.486
Indirect effect						
Id -> Meritocracy->Social Well-being	-0.022	0.021	0.286	-0.063	0.018	-0.056
Id-> Meritocracy ->Distress	-0.001	0.013	0.909	-0.027	0.024	-0.006
Id-> Meritocracy->Self Efficacy	0.070	0.018	< .001	0.034	0.107	0.257
Id-> Hierarchy ->Social Well-being	0.057	0.024	0.018	0.010	0.105	0.145
Id-> Hierarchy ->Distress	-0.007	0.014	0.612	-0.035	0.021	-0.030
Id-> Hierarchy ->Self Efficacy	0.004	0.015	0.777	-0.025	0.033	0.015
Total effect						
Id->Social Well-being	0.130	0.039	< .001	0.054	0.207	0.330

	<i>b</i>	<i>SE</i>	<i>p</i>	95% <i>CI</i> <i>low</i>	95% <i>CI</i> <i>high</i>	β
Id->Distress	-0.084	0.024	< .001	-0.132	-0.037	-0.348
Id->Self-Efficacy	0.061	0.025	0.013	0.013	0.109	0.222

Note: id: identification with migrant group.

Figure 3. Mediation model



Discussion

Although system justification has been a much-debated topic in recent years, there are still few studies that have analyzed the system justification dynamics of extremely disadvantaged status groups. SJT postulated that members of disadvantaged status groups should show a high level of system justification following the need to reduce ideological dissonance (Jost et al., 2003). Contrary to this expectation, the results indicated that the participants showed low levels of system justification beliefs, disconfirming the assumptions of SJT. This result seems to be in line with SIMSA (Rubin et al., 2023a) suggesting that the difficulty of comparing the ingroup with a more disadvantaged status group could lead to a reduced endorsement of the existing system.

The second hypothesis from SJT, for which system justification would have been linked to well-being when identification was low, was only partially supported. Indeed, we found a positive relationship between system justification and well-being (which is in line with the palliative function of system justification), but this effect was independent of the level of ingroup identification. Given that, according to Jost et al. (2003; but see Owuamalam et al., 2016 for criticism on this point) ideological dissonance would work more when ingroup identification is low, it seems that system justification would not serve to reduce ideological dissonance. On the contrary, in this study it was found that both system justification and ingroup identification are linked to well-being. In fact, ingroup identification has shown a positive correlation with the beliefs supporting meritocracy and social hierarchy which in turn are correlated with well-being. These findings support SIMSA's expectations according to which ingroup identification should be positively, rather than negatively, linked to system justification in most cases (Rubin et al., 2023). These results are also supportive of the hypothesis that identification with the ingroup would lead participants to report better outcomes in terms of well-being. This

seems to confirm the role of social identification as a determinant of individuals' health (e.g., Haslam et al., 2018). Moreover, a mediation effect was detected for which the identification with the disadvantaged status group allowed to support the system (meritocratic and hierarchical) that played the role of mediator increasing the levels of self-efficacy and social well-being, respectively. These results support SIMSA's assumptions, showing that identification with the disadvantaged status ingroup contributes to adherence to justification beliefs that in turn are linked to positive well-being outcomes, and is in contrast with SJT's hypothesis that assumes that system support operates when personal and group interests are low.

Limits

The first limitation of the study is that the measures showed poor psychometric quality probably due to the participants' difficulty of understanding some items. Another limitation is the reduced sample size which, adding to the previous limit, does not allow for generalizing the results. In addition, the type of sample examined (migrants, asylum seekers, and refugees) involved people who, although they were part of a disadvantaged status group, had also succeeded in their intention to start a new life in a safer country. The experience of the population probably had an impact on the system justification processes. For example, support for a meritocratic system according to which one's own efforts facilitate what one wants, enabled members of disadvantaged status groups to perceive themselves as capable of solving difficult situations through their own abilities. We can consider, as much as speculative it may be, that participants found ways to compare themselves positively with a more disadvantaged status group by comparing themselves with those who could not or did not improve their social status. Future research could explore in a similar sample the intergroup comparison hypothesis proposed by SIMSA (Rubin et al., 2023a, b), according to which the opportunity to

compare oneself positively with a more disadvantaged status group helps to sustain an inequitable system.

Brief conclusion of the chapter

In this chapter, we aimed to investigate whether (a) a group of sexual minorities (e.g. non-straight individuals) and (b) a highly disadvantaged status group (e.g., migrants, refugees, and asylum seekers) justified the inequity of the system in which they live and of which they are victims. Overall, the two studies have shown results that align with the theoretical framework of SIMSA (Rubin et al., 2023a).

In the first study, participants demonstrated awareness of the social disadvantage affecting them and attributed this primarily to ignorance and lack of education. A recurring theme in many interviews was the comparison, both temporal and intergroup. Participants reported feeling less discriminated against when they could compare themselves in various ways (e.g., with a more disadvantaged status group or with other cultural contexts, or even with a past condition considered worse).

In the second study, the results revealed low levels of system justification, which could be attributed to the lack of positive comparison with a more disadvantaged status group. However, identification with one's ingroup of disadvantaged status contributed to justifying the system, consequently improving levels of social well-being and perceived self-efficacy.

These results contradict what is expected by the System Justification Theory (SJT; Jost & Banaji, 1994), which posits that system justification is negatively linked to personal and group interests.

Chapter Three

The intergroup comparison as an explanation of the system justification process

General aims of the project and brief organization of the studies

As already stated in the introduction section, intergroup comparison has been advocated as one of the reasons why disadvantaged-status group members can support the existing social system. The Triadic Social Stratification Theory (TSST, Caricati, 2018), for example, supplies a different view of the social hierarchy considering social stratification under a triadic lens. This allows to conceptualize a more realistic view of the complexity of society. Indeed, members of an intermediate-status group may compare themselves negatively with a more advantaged status group, but they may also relate to a more disadvantaged status group. Justifying the system for intermediate-status group members means protecting their ingroup's interests (Caricati, 2018). In this way, the intermediate-status group allows members to positively compare with a lower-status outgroup and then maintain a positive social identity.

Three studies that investigated the system justification in intermediate-status groups will be presented. The studies were conducted with the overall aim of helping to clarify the role of intergroup comparison on system justification processes among disadvantaged groups, in particular groups that are placed in an intermediate-status position in the social hierarchy.

Study 3

Aim and Hypothesis

The first study is a pilot study that aimed to supply preliminary evidence regarding the role of being in an intermediate-status group (downward positive comparison allowed) vs. being in a low-status group (downward positive comparison not allowed) on system justification processes. TSST (Caricati, 2018) assumes that the system justification is oriented to the interest of the group. Upward and downward comparisons make members of the intermediate-status group aware that even if their ingroup is not in an absolutely privileged position, it is still more advantaged than the low-status group. The system justification among members of disadvantaged status groups could be higher when positive downward intergroup comparisons can be performed, that is when members belong to an intermediate-status group rather than to a low-status group. Specifically, we hypothesized that members of an intermediate-status group would show higher levels of system justification than those who had no possibility to positively compare the ingroup with a most disadvantaged-status group (Hypothesis 1).

Methodology

Research design and participants

An experimental design was used in order to verify the hypothesis in which three independent conditions were seated:

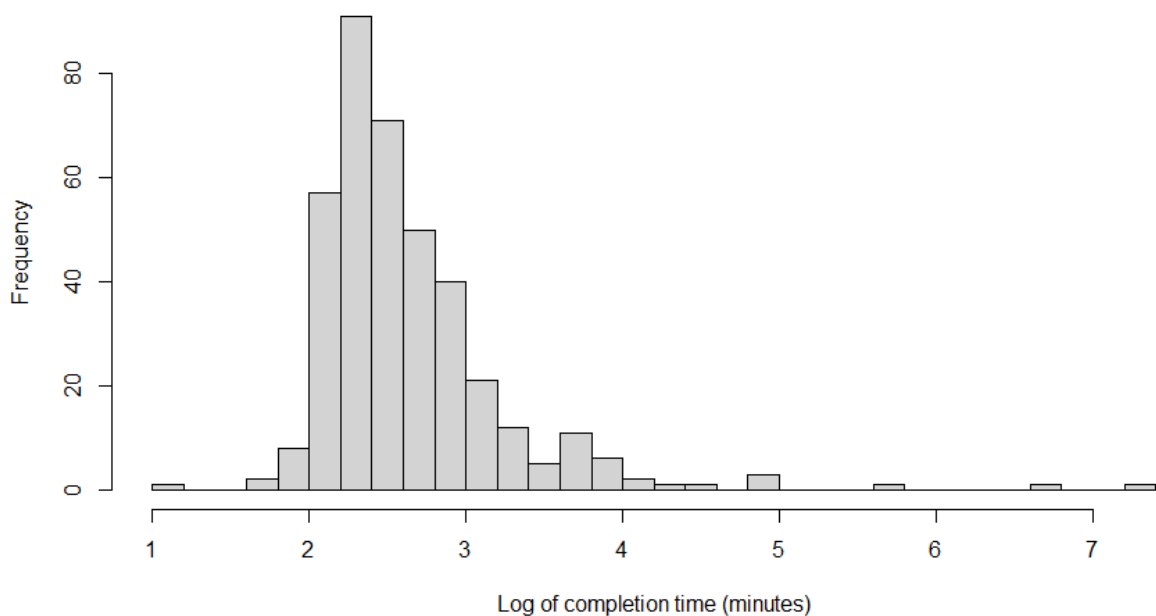
- *Presence of comparison with a lower-status group*: participants are placed in an intermediate-status group and could compare their ingroup group with a more disadvantaged status outgroup, as well as with a more advantaged status outgroup.
- *Absence of comparison with a lower-status group*: participants are placed in a low-status group and could only compare their ingroup with a higher-status group.
- *Control condition*: participants were not categorized into groups and received no information about social hierarchy.

The procedure was administered online and the link to the experimental protocol was sent via the internal email to the students of the Department of Humanities, Social Sciences and Cultural Industries of the University of Parma (psychology students were excluded). Participants were informed that participation was voluntary, anonymous and that they could leave the research at any time. 658 people accessed the survey, but the questionnaire was filled only by 414 people. Following the exclusion criteria, 9 people missed the attention check and 4 did not approve the final consent, also 16 declared to have no Italian nationality. The resulting sample was then composed of 385 participants.

We preliminarily checked the time that participants took to complete the survey (Figure 4). The average time completion was 22.86 minutes with a wide variability ($SD = 89.96$ minutes, range = 3.27-1551.07). To manage this aspect and to have poor response due to lack of attention or satisfaction (Huang et al., 2012; Simon, 1947), we log-transformed completion times and observed distributions. Based on the observation of distribution, we decided to exclude 5% of participants who were faster or slower (corresponding to times greater than 466 seconds and lower than 2400 seconds). After this exclusion, the average completion time was of 14.13 minutes ($SD = 6.30$, range =

7.80 - 39.85). The final sample was composed of 344 participants ($M_{\text{age}} = 32.37$ years, $SD = 14.08$, range = 18-71).

Figure 4. Distribution of time to complete the questionnaire.



Cover story

Once given access to the questionnaire link, participants were first randomly assigned to the three conditions, obtaining 105 participants in the presence of comparison with a lower status group condition, 123 in the absence of comparison with a lower status group condition and 116 in the control condition. Those who were in the two experimental groups read the informed consent in which it was anticipated that they would take a personality test, the Portrait Value Questionnaire (PVQ short form; Schwartz et al., 2001).

Participants in the control condition watched a video that was supposed to improve concentration in view of the upcoming completion of the questionnaire. The video was an advertisement for a vehicle brand that showed the mechanical components needed to compose a car. Therefore, no reference to group membership nor to intergroup comparisons was presented in the control condition.

In all cases, participants were informed that in the second part of the procedure they would be asked to express their opinion about our society.

Manipulation of the status

The participants who had performed the personality test, that is the participants in the two experimental conditions, read the characteristics of groups having different statuses. The manipulation consisted of the different types of comparisons they could have with the outgroups. In fact, participants assigned to the triadic condition read that the score that emerged from the test identified them as being in an intermediate status between the “Analytics” and “Dreamers” groups. Participants assigned to the dyadic condition were presented with only two groups, specifying that they were part of a lower-status group (called “Sentinels”) against the upper-status outgroup (“Analytics”). The “Analytics” group was described as the high-status group. Participants were told that “Analytics” are people who are more predisposed to analyze the information they receive, being able to skillfully adapt the information at hand to the demands of the company. Because of these characteristics, those who had belonged to the “Analytics” group would be more likely to occupy positions of high responsibility and prestige in companies.

Next, the group of “Sentinels” was described. This group was presented as an intermediate-status group in the triadic hierarchy condition, while it was presented as a

low-status group in the dyadic hierarchy condition. Correspondents to this group were described as characterized by attention to the totality of information but forgetting the details. Because of this inattention, they tended to occupy positions of moderate responsibility, while remaining in a subordinate position.

Finally, the group of “Dreamers” that corresponded to the low-status group was described. This group was presented only in the experimental condition corresponding to the presence comparison with a low-status group condition. Participants were informed that those who were in this group were characterized by a superficial approach to processing the information they received. They would occupy mainly executive and low-responsibility positions and could not aspire to high job positions.

Subsequently, participants were informed of the results obtained from the test. Regardless of the answers to the test, all participants were led to believe that they were categorized in the “Sentinels” group.

Debriefing

At the end of the experiment, a debriefing was presented to all the participants. The purpose of the procedure was to inform the participants of the unfoundedness of the test results, specifying that the characteristics of the groups were invented by the researchers for research purposes. Likewise, it was made explicit that membership in the disadvantaged or intermediate status group was also decided by the researchers and had nothing to do with the participant's abilities and characteristics.

Measures

For the full list of items see the Appendix.

General System Justification was measured with 8 items from Kay and Jost's (2003) general system justification scale. The participants had to indicate their agreement on a 7-point Likert-type scale (1 = “completely disagree”, 7 = “completely agree”) at statements such as “In general, you find society to be fair,” and “Italy is the best country in the world to live in”. The reliability was satisfactory ($\alpha = .82$)

Economic system justification was measured with 6 items from the Italian version (Caricati, 2008) of the economic system justification scale (Jost & Thompson, 2000). The participants had to indicate their agreement on a 7-point Likert-type scale from 1 (= “completely disagree”) to 7 (= “completely agree”). The reliability of the scale was relatively low ($\alpha = .55$)

Control measure

Manipulation check. To verify the success and effectiveness of the status manipulation, participants were asked to attribute a level of social prestige to the three or two groups identified (depending on the condition to which they were assigned). Participants had to indicate the level of prestige on an 11-point Likert-type from 0 (= “very low prestige”) to 10 (= “prestige very high”).

Attention check. In order to check the attention of the participants, we asked the participants not to select any answer and continued with the completion of the questionnaire.

Results

Manipulation check

Manipulation was checked separately for the two experimental conditions through a repeated measure analysis of variance ANOVA. In the dyadic condition, the analysis showed a significant effect $F(1,122) = 28.47, p < .001, \eta^2_p = .19$, for which the higher status group (i.e., Analytics) was actually perceived to have a higher status ($M = 7.60, SD = 1.87$) compared to Sentinels, the low-status group ($M = 6.32, SD = 1.77$).

Similarly, for the condition where the ingroup was the intermediate-status group, a significant effect of target emerged, $F(2,208) = 31.25, p < .001, \eta^2_p = .23$. The high-status group was perceived as higher in status ($M = 7.64, SD = 2.20$), than the intermediate-status group ($M = 6.77, SD = 1.53$) which in turn was perceived to have higher prestige than the more disadvantaged-status group ($M = 5.52, SD = 2.32$; all post-hoc $p < .001$). Thus, it seemed that the manipulation of the status was effective.

Preliminary analysis

Psychometric analysis showed that the economic system justification scale had a low reliability. This scale is used to refer to two dimensions (see also Becker et al., 2016 for the multidimensional structure of the ESJ). One dimension related to meritocracy (e.g., "Economic positions are legitimate reflections of people's achievements," "If people work hard, they almost always get what they want"). The second referred to the social hierarchy (i.e., "There is no point in trying to make incomes more equal", "There are many reasons to think that the economic system is unfair"). So, we decided to examine factor structure of the scale to verify whether the low reliability could be due to the bi-dimensional structure of the scale. The value of KMO (0.73) and the Bartlett test ($\chi^2(15)$

= 227.57, $p < .001$) suggested that items were adequate to be factorized. Accordingly, parallel analysis suggested the existence of two factors and we then performed factor analysis with promax rotation on the six items. The confirmative factor analysis shows that the two-dimension structure has a good fit for the data (TLI = 0.989, RMSEA = 0.021, 90%CI [0.000, 0.087]). As indicated in Table 7, we assumed that the scale was composed of two dimensions, one which was related to meritocracy beliefs (e.g., reward for individual efforts) and one which was related to the legitimacy of existing social hierarchy.

Table 7. ESJ confirmative analysis

	Meritocracy	Social Hierarchy
1. Economic positions are legitimate reflections of people's achievements	0.68	
2. If people work hard, they almost always get what they want	0.59	
3. Most people who don't get ahead in our society should not blame the system	0.50	
4. Social class differences reflect differences in the natural order of things	0.42	0.22
5. There is no point in trying to make incomes more equal		0.70
6. There are many reasons to think that the economic system is unfair (rev)		0.24

Zero-order correlations (Table 8) between the subdimension of meritocracy, social hierarchy and general system justification shows that all the measures were positively and significantly correlated to each other.

Table 8. Zero-correlation of the measures

	1	2	3
1.Meritocracy	-		
2.Social hierarchy	0.27 ***	-	
3.General SJ	0.22 ***	0.28 ***	-
<i>M</i>	3.35	2.37	2.85
<i>SD</i>	1.14	1.19	0.89

*** $p < .001$; $N = 385$

Hypothesis test

In order to test the hypotheses, we conducted analyses of variance ANOVA to examine the differences between the different conditions of the general system justification and the two subdimensions of the economic system justification (see Figure 5).

General system justification

ANOVA showed a significant difference in the levels of system justification between conditions ($F(2,341) = 3.72, p = .025, \eta_p^2 = .02$). The general system justification was higher in both the presence of comparison with a lower status group condition ($M = 2.96, SD = 0.88$) and the control condition ($M = 2.94, SD = 0.92$) with respect to the absence of comparison with a lower status group condition ($M = 2.68, SD = 0.84$). Contrast analyses revealed no significant difference between the presence of the comparison condition and the control condition ($t(341) = 0.17, p = .87$) when putting the absence of the comparison condition at zero. The difference between the presence of the comparison

condition and the absence of the comparison condition was significant ($t(341) = 2.39, p = .02$) when putting the control condition at zero.

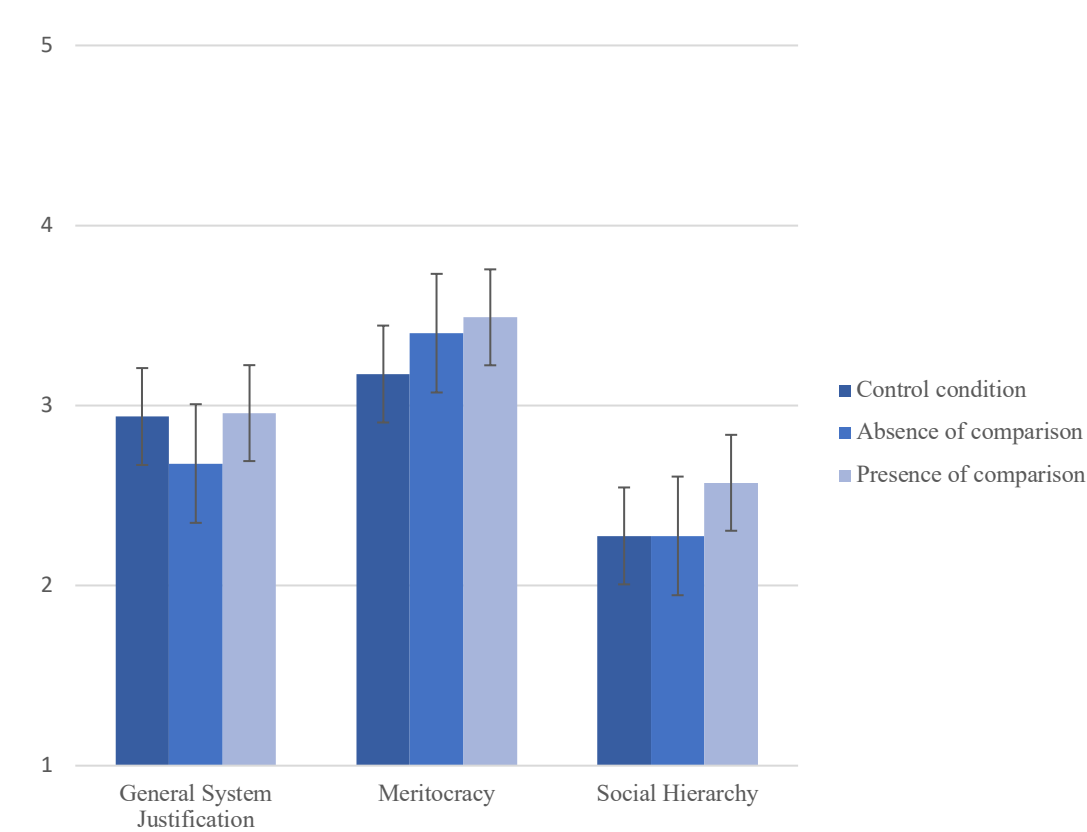
Economic system justification

Regarding the economic system justification scale, we conducted separate analyses for the two sub-dimensions.

Support for Meritocracy. Participants in the presence of the comparison ($M = 3.50, SD = 1.04$) and absence of the comparison ($M = 3.40, SD = 1.18$) conditions showed a higher level of support for meritocracy than participants in the control condition ($M = 3.17, SD = 1.17$), but no significant differences among conditions appeared ($F(2, 341) = 2.31, p = .10, \eta_p^2 = .01$). However, the contrast analysis indicated that the difference between the control condition and the presence of the comparison condition was significant ($t(341) = -2.06, p = .04$) putting the absence of the comparison condition at zero.

Support for Social hierarchy. Also in this case, no significant effect of conditions appeared $F(2,341) = 2.25, p = .10, \eta_p^2 = .01$. However, the hierarchical system justification appeared to be higher for those who were in the presence of the comparison condition ($M = 2.57, SD = 1.39$) compared for both the absence of the comparison condition ($M = 2.28, SD = 1.02$) and the control condition ($M = 2.28, SD = 1.16$). Accordingly, contrast analysis showed an almost significant difference between the presence of the comparison condition and the absence of the comparison condition ($t(341) = 1.87, p = .06$) putting the control condition at zero.

Figure 5. System justification beliefs between conditions



Note: bars represent standard errors

Discussion

The aim of this study was to compare the system justification among members of the intermediate-status group vs. members of the low-status group, assuming a different possibility of making a positive downward comparison. This pilot study confirmed the initial hypothesis that participants in the presence of comparison with a lower status group condition (i.e., in the intermediate-status group) justified the status quo more than participants in the absence of comparison with a lower status group condition (i.e., in the low-status group). This result supports the hypotheses of the TSST (Caricati, 2018) which suggests that having the opportunity to compare positively with a group of a worse status may motivate the disadvantaged status group to justify the existing social arrangement. In other words, comparing the ingroup with a worse status group could lead members of the intermediate-status group to support the current system in order to preserve the relative social advantage they can take from the downward comparison. Regarding the economic system justification dimensions, the members of the disadvantaged-status groups justified the system more when the measure was related to the meritocracy dimension. Support for social hierarchy showed lower levels of justification compared to the meritocracy dimension. The higher levels of the meritocracy dimension may be due to the fact that meritocracy was more salient, given the type of manipulation used that referred to personal characteristics to perform work of different privileges. Generally speaking, this result suggests that supporting existing hierarchy and existing meritocracy might be different processes. However, hierarchy was more supported by those who could compare favorably with a more disadvantaged status group. With respect to the general system justification, the results showed that the groups that justify the most was the group in which downward comparison was allowed and the control condition. Again, the results show that members of the intermediate-status group who could compare positively

downward are more likely to show system justification. The results in line with the TSST and SIMSA hypothesis, demonstrated that members of groups positioned at the intermediate status justify the general system more than members of dominated groups.

The high level of justification which was observed in the control group is probably due to the nature of the control condition. Participants in this condition had no way to categorize themselves in a group and within a hierarchy. It can be assumed that an automatic categorization was activated at the superordinate level since the items referred to the national system. If so, this result would be in line with the theoretical assumptions of SIMSA which states that identification to a superordinate-level categorization would represent an expression of favoritism to the ingroup, in this case on a national level. So, since they could not refer to any specific group, superordinate-level identification may have increased the need to perceive the ingroup as positively distinct from other outgroups. This is however a tentative explanation that deserves caution and further investigation.

In this pilot study, participants were led to believe that some personality traits would affect future job opportunities. However, we must consider that we used a "light" manipulation namely the description of the statuses of the different groups did not provide a strong distinction between the groups. In fact, it can be seen that the levels of status attribution of the participants in the absence of comparison with a lower status group condition are relatively high and similar to those in the presence of comparison with a lower status group condition attribution. We used this procedure for ethical reasons because participants who would have stopped the compilation without reading the debriefing would have believed as true the devaluations associated with the group to which they belonged. This forced us to use a positive description also for low-status groups. This could have affected the extent to which participants in low-status group

condition would believe that their ingroup was in a low-status group and this in turn could have masked the effect of ingroup status to some extent. In the subsequent Study we take into account also this aspect.

Study 4

Aim and Hypothesis

The study aimed to replicate Study 3. However, in the previous study, the attribution of ingroup status in the presence and absence comparison with a lower status group condition was perceived similarly. This is due to the fact that, for ethical reasons, it was not possible to describe the ingroup in an excessively negative way. Given this limitation and the measurement issues that emerged in the pilot study, we attempted to improve the procedure in Study 4. The pilot study showed that being able to compare with a more disadvantaged-status group allows members of the intermediate-status group to justify the system more than participants who can't have a downward comparison, especially for what concerns the justification of the existing social hierarchy.

TSST (Caricati, 2018) predicts that the levels of system justification of members of a disadvantaged-status group may differ depending on the presence or absence of the possibility of making a positive downward intergroup comparison, the aim of this study was to further investigate the formulation of the downward comparison on system justification dynamics. Specifically, we expected to find that system justification may be higher when the ingroup was described as intermediate in social stratification (i.e., downward intergroup comparison was possible) compared with when the ingroup was described as having low status (i.e., downward intergroup comparison was not possible – Hypothesis 1). In addition, TSST's social identity approach predicts that members of disadvantaged status groups tend to justify the existing system when they can compare themselves positively with a disadvantaged outgroup. This assumption refers to groups in an intermediate position that comparing themselves positively downward will be more

likely to justify the system, especially if members are strongly identified. Follow this assumption, we hypothesized that the system justification among intermediate-status group members would be higher, especially for participants who strongly identified with the ingroup (Hypothesis 2)

Methodology

Sample size

We simulated a multivariate approach with categorical and continuous variables and their interaction in order to estimate the sample size. We considered $\alpha = 0.05$ and $\beta = 0.80$ and set the main effects at a low magnitude (0.10) and the interaction effect at 0.20 and generated 5000 replications for different sample sizes (from 100 to 300). Simulation results showed that 190 participants were required to reach the desired power.

Research design and participants

Before starting data collection, the research protocol was submitted to the University Ethics Committee which supplied formal approval (prot. no. 0184287). Also in this case, we used an experimental design with an online procedure. For recruitment, we used the platform Prolific which allows participants to be paid for participating in research. The participants read the informed consent indicating that participation was voluntary and anonymous and that they could leave the survey at any time. The participants were paid £1.5 which is equivalent to 10/12 minutes in the participation. All participants were informed that they would be asked to answer to some questions related to their view of society and job roles. To participate in the research, participants had to be 18 years old or older and had to be of U.S. nationality. The choice to conduct the

research online was due to the fact that, since participants had to finish the questionnaire in order to be paid, this type of sampling ensured that participants would read the debriefing and could find out the true purpose of the research, the use of manipulation and in this way carry out the research as ethically as possible.

As done in study 3, participants were randomly assigned to one of the three experimental conditions:

- The presence of the comparison with the low-status group, corresponds to the presentation of a triadic hierarchy.
- The absence of the comparison with the low-status group, corresponds to the presentation of a dyadic hierarchy.
- Control condition in which no comparison was present.

A total of 232 women and men of U.S. nationality participated. In data analysis, one participant who missed the attention check and 11 others who missed the manipulation check was eliminated. The final sample included 220 participants ($M_{age} = 33.89$, $SD = 11.19$). Of those 127 were female, 85 were male and 8 were non-binary.

Procedure

Cover story

Participants in the two experimental conditions were presented with a test with the aim of assessing their thinking ability. The test, called "IBD-PPP" (McMillian & Vander, 2015) was created ad hoc and has no scientific value in any way. It was explained that the test is usually used by companies to understand candidates' strategic thinking and logical reasoning in order to decide how suitable they are for a job. Participants in the two experimental conditions read the following.

You will first have to take a test, called the IBD-PPP (McMillian & Vander, 2015), which assesses strategic thinking and logical reasoning skills. The IBD-PPP is increasingly being used by companies to profile candidates. The answers you provide on the test will allow the software to assign you to one group.

Next, you will be asked to answer some questions related to your view of society and your future job role within it. Incomplete sentences will appear on the next pages along with some alternatives. Select the one you think is best to complete the sentence. Remember that there are no right or wrong answers, what matters is only your point of view.

Some examples of the test were:

*"Select the alternative that you think would be best. You have **15 seconds** for each sentence."*

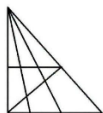
1. There is no news about the.....girl

- kidnapped*
- missing*
- fugitive*
- robber*

2. Her purpose was to help identify...

- the police agent*
- the kidnapper*
- the victim*
- the perpetrator*

*Write the number of triangles you see in the figure. You have **25 seconds** for each picture.*



During the achievement of the test, a timer containing a countdown appeared for each item. If time was up, participants were allowed to respond anyway. The purpose of this stratagem was solely to induce particularly well-prepared participants to think that the

short amount of time might play a role in lowering the quality of performance. Thus, the use of the timer was functional in lowering the probability of unmasking the cover story.

Manipulation of the status

Once the test was administered, participants were assigned to the present or absent comparison conditions randomly and independently of their test responses. In the presence of comparison with the low-status group condition, participants were asked to read descriptions of the three groups to which they might belong (Figure 6).

Fig. 6. Three groups description

Your profile is being processed...

While waiting, let us explain to you the results that the IBD-PPP provides.

Responses given to ambiguous prompts, such as those you saw earlier, reveal people's thinking style that is associated with different abilities. Research has shown that the test identifies **2 groups** of people whose thinking style is strongly and stably associated with both future job performance and the ability to learn in, and adapt to, the workplace.

The **DIGITALS**: The members of the Digital group have excellent reasoning and problem-solving skills and understand spatial relationships between objects easily. Because of their adaptability and problem-solving skills, Digitals turn out to be perfect for all high-skilled jobs. Accordingly, they are the ones who have greater job opportunities, especially in top roles.

The **METHODICS**: The members of the Methodic group have circumscribed reasoning skills, they perform well in simple tasks but encounter problems in more stressful and complex situations. Because of their poor adaptability and limited skill to solve complex problems, Methodics turn out to be suitable for jobs requiring no decision-making or responsibilities. Usually, they are not suitable for top job positions.

The **ANALOGS**: The members of the Analog group have poor reasoning ability and limited organizational skills and perform work with weak autonomy. They turn out to be suitable for simple jobs requiring subordinate positions and no responsibilities. Usually, Analogists are unsuitable for jobs requiring moderate skills.

Instead, participants assigned to the absence of comparison with the low-status group condition read the description of the two groups (Fig. 7).

Fig. 7. Two groups description

Your profile is being processed...

While waiting, let us explain to you the results that the IBD-PPP provides.

Responses given to ambiguous prompts, such as those you saw earlier, reveal people's thinking style that is associated with different abilities. Research has shown that the test identifies **2 groups** of people whose thinking style is strongly and stably associated with both future job performance and the ability to learn in, and adapt to, the workplace.

The **DIGITALS**: The members of the Digital group have excellent reasoning and problem-solving skills and understand spatial relationships between objects easily. Because of their adaptability and problem-solving skills, Digitals turn out to be perfect for all high-skilled jobs. Accordingly, they are the ones who have greater job opportunities, especially in top roles.

The **METHODICS**: The members of the Methodic group have circumscribed reasoning skills, they perform well in simple tasks but encounter problems in more stressful and complex situations. Because of their poor adaptability and limited skill to solve complex problems, Methodics turn out to be suitable for jobs requiring no decision-making or responsibilities. Usually, they are not suitable for top job positions.

Regardless of which group the participants were assigned to, everyone was told that by virtue of their responses to the test, they belonged to the “Methodics” group. The group represented the intermediate-status group for those belonging to the present comparison condition while it represented the low-status group for those belonging to the absent comparison condition. Once participants knew their ingroup, they were given the opportunity to reread its characteristics.

The control condition

As a baseline condition, the control condition did not involve any kind of comparison and therefore no manipulation was used. While the participants of the experimental condition took the test, the randomly assigned to the control condition participants had to read a short essay on the topic of botany (Figure 8).

Fig. 8. Essay for the control condition

The garden is the only place in the house that calms the senses and gives a pleasing feeling to the mind and body. Also, you can install a gazebo in the garden and enjoy your garden's beauty while sitting on it.

Besides, another benefit of the garden is that you can grow organic vegetables and fruits at home. The quantity of this product is large so you can share it with your neighbors. Also, homegrown fruits and vegetables are more delicious and taste better than the fruits and vegetables that we buy from the market.

Moreover, my garden has many flowering plants that give a pleasing fragrance that makes the environment light and aromatic. The flowering plants that I have in my garden include roses, sunflowers, dahlia, jasmine, marigold, common, night-blooming jasmine, tuberose flower, hibiscus, and many more. But, my all-time favorite is night-blooming jasmine whose pleasing smell spreads at night and makes the whole house aromatic. Everyone thinks that planting trees and plants is an easy task and that anyone with a trowel, lopper, and weeder can easily do it. But, only gardeners and the people who do gardening know the effort and energy that gardening needs. Besides, only water is not enough for plants they also need manure. Also, they need daily care in order to keep them healthy and fresh.

Moreover, most of the plants are green which means they need proper sunlight. Many people hire professional gardeners to take care of their garden but doing it on our own is more pleasurable. Also, it helps us to connect with the garden.

Most of the plants and trees that are in my garden are either planted by me or my family members. We go to the nursery to buy seasonal plants every season and most of the flowering plants are replaced every season as they die due to climate change. After buying them we plant these saplings or plants in a strategic order. So, that garden looks more colorful.

To conclude, we can say that gardening is a very good and productive habit. Also, it helps a person to establish a connection with the greenery and love towards nature. Besides, for most people, the best memories of childhood are attached to the garden. The Garden is the place where families share their evening tea and discussion which keeps their bond stronger. Above all, a garden is the most amazing place in the house no matter what the season is.

Debriefing

Following the manipulation, and after responding to the scales and completing the demographic section, the debriefing was presented. In this section, participants read that the test that had been presented was made up. It was also clarified that division into groups, and membership in different status groups were stratagems used to have the possibility to manipulate intergroup comparison. This stage was particularly important to prevent participants from leaving the experiment with feelings of frustration or devaluation given by the test result.

After revealing the true purpose of the research, participants were given the opportunity to indicate whether they would consent again to the data processing.

Measures

Responses of all the following measures were on a 7-point Likert scale (1 = “strongly disagree”, 7 = “strongly agree”). For a full list of items see the Appendix.

System justification was measured by considering two dimensions.

1. *The Meritocracy beliefs.* We used two measures as previously used by O'Brien & Major (2005). Four items were part of the Protestant work ethic scale (Levin et al., 1998) asking participants to indicate their agreement (e.g., “If people work hard they almost always get what they want”, “Most people who don’t get ahead should not blame the system; they really have only themselves to blame”).

The other four items were from the Perceived System Permeability scale (Levin et al., 1998). Some examples were “America is an open society where individuals of any ethnicity can achieve higher status”, and “Advancement in American society is

possible for individuals of all ethnic groups”. The general reliability was good ($\alpha = .87$)

2. *Group system justification beliefs* scale was measured with eight items already used by O’Brien et al. (2012). The scale referred to groups in society (e.g., “Groups in society earn the punishments and rewards they get”, “All groups in society people treat each other with the respect that they deserve”). Reliability was very good ($\alpha = .91$)

Ingroup identification. Four items were adapted by Schmitt & Branscombe (2001) and referred to the membership of the ingroup. Since we administered the scale in the control condition, we transformed the items between the experimental condition (i.e., “Right now, I value being a member of the Methodic group”) and the control condition (i.e., “Right now, I value being a member of this experiment”). Reliability was good ($\alpha = .97$)

Perception of the legitimacy of differences between groups. Two items were ad hoc created to be administered to participants only for the two experimental conditions. The items used were “It would be right if companies would use personality profiles such as those detected by IBD-PPP to screen employment applicants”, “It would be right if companies would use personality profiles such as those detected by IBD-PPP to select employees to whom give bonus”. Reliability was good ($\alpha = .78$).

Control measures

Manipulation check. In order to check for the effectiveness of manipulation of groups' status, participants were asked to indicate the level of social prestige of the three/two groups on an 11-point Likert-type scale (0 = “very low prestige”, 10 = “very high prestige”).

Attention check. One item asking participants to select the number three in a list of numbers from one to ten will be used as an attention check.

Results

Manipulation check

As a first step, we verified if the manipulation was effective. We performed a repeated-measures ANOVA separately for the two experimental conditions. Analysis of the present comparison condition (i.e., ingroup as the intermediate-status group) showed a significant effect $F(2, 144) = 38.21, p < .001, \eta^2_p = .35$ of target of prestige. The higher status group, the “Digitals”, were perceived to have a higher status ($M = 7.22, SD = 2.60$) than the intermediate-status ingroup ($M = 5.22, SD = 2.10, \Delta M = 2.00, SE = 0.35, p < .001$) that in turn was perceived to have a higher status than the low-status group ($M = 3.64, SD = 2.52, \Delta M = 1.58, SE = 0.38, p < .001$).

In the absent comparison condition (i.e., ingroup as low-status group), the analysis also showed a significant effect $F(1, 65) = 78.66, p < .001, \eta^2_p = .55$, for which the high-status group was perceived as having a higher status ($M = 8.05, SD = 2.08$) than the low-status group ($M = 4.09, SD = 2.28$).

We also compared the perceived ingroup prestige between the two conditions. It emerged that the ingroup was rated as higher in status when it was in the intermediate position, corresponding at the present comparison condition, $F(1, 137) = 9.22, p = .002, \eta^2_p = .06$). Manipulations seemed to be effective.

Preliminary analysis

Zero-order correlation analysis was performed to verify the association between the examined constructs (Table 9). The legitimacy of the use of IBD-PPP test was positively correlated with system justification beliefs and meritocracy. Justification beliefs and meritocratic beliefs showed a positive correlation. However, ingroup identification wasn't correlated with meritocracy and system justification beliefs but was positively correlated with the perceived legitimacy of IBD-PPP test. Interestingly, and consistently with previous results, meritocracy had a higher mean than general system justification, $t(215) = 10.03, p < .001$.

Table 9. Zero-order correlations of measured constructs.

	1	2	3	4
1.SJB	-			
2.Meritocracy	.86**	-		
3. Ingroup Identification	.07	.08	-	
4.Legitimacy of use of IBD-PPP test	.39**	.39**	.27**	-
<i>M</i>	2.72	3.16	4.03	2.56
<i>SD</i>	1.21	1.12	1.62	1.51

** $p < .01$; N = 220

An analysis of variance ANOVA was conducted to analyze the levels of ingroup identification in the three conditions. The analysis showed a significant difference between the three conditions ($F(2, 213) = 71.80, p < .001, \eta^2_p = .40$). The control group showed the highest level of ingroup identification ($M = 5.30, SD = 1.04$). For the participants in the present comparison condition, the identification with the ingroup was stronger ($M = 3.53, SD = 1.30$) than for participants in the absent comparison condition ($M = 3.00, SD = 1.43; \Delta M = 0.53, SE = 0.21, p = .014$).

Hypothesis testing

Given that the measure of general system justification and meritocracy were strongly and positively correlated one to another, we collapsed the two measures in one single dimension of system-justifying beliefs. In order to test the hypothesis, we conducted a path analysis in which system-justifying beliefs were regressed on status condition, ingroup identification and condition x identification interaction. Given that the condition had three levels, it was coded as two contrasts. The first contrast compared the low-status condition (coded as -1) to the control condition (coded as 1) putting the intermediate-status condition equal to 0. The second contrast compared the low-status condition (again coded as -1) and the intermediate-status condition (coded as 1) coding the control condition as 0.

Results (see Table 10 for unstandardized results) indicated that contrary to what we expected from Hypothesis 1, no differences in system-justifying beliefs among conditions emerged, although system justification tended to be marginally higher in the present comparison condition ($M = 3.07, SE = 0.13$) than in both absent comparison condition ($M = 2.98, SE = 0.16$) and control condition ($M = 2.84, SE = 0.18$).

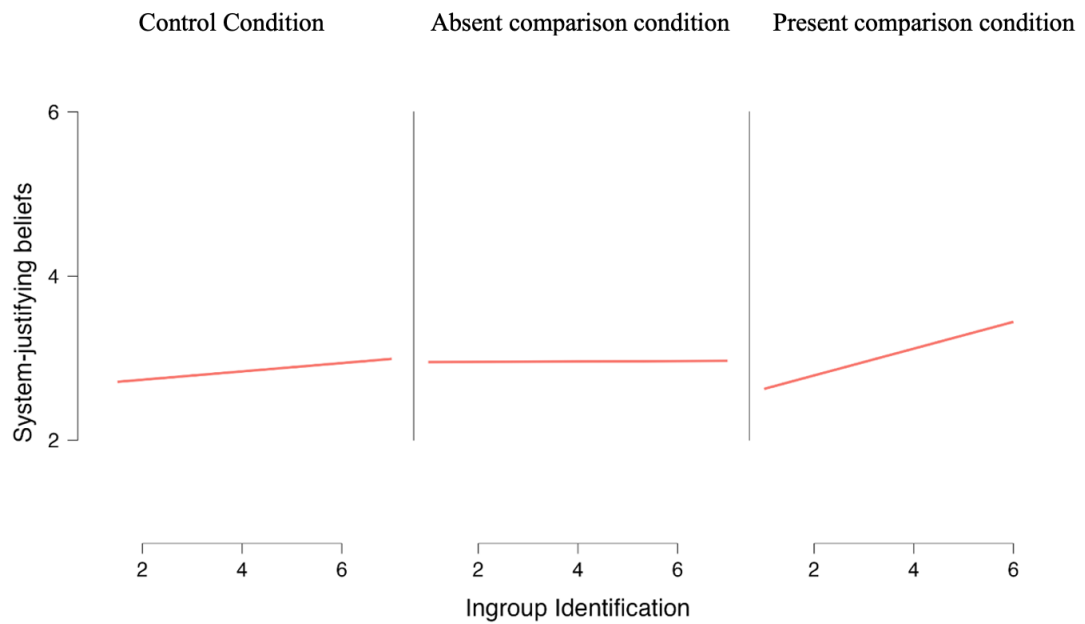
Similarly, identification had no significant direct relationship with system-justifying beliefs. However, consistently with Hypothesis 2, we found a significant interaction between ingroup identification and the second contrast indicating that the association between identification and system-justifying beliefs was positive when the ingroup had intermediate status, ($b = 0.261$, $SE = 0.077$, $Z = 3.376$, $p = .001$), but not either in absent comparison condition ($b = 0.003$, $SE = 0.119$, $Z = 0.022$, $p = .983$) or in the control condition ($b = 0.051$, $SE = 0.114$, $Z = 0.445$, $p = .657$). Figure 9 reports slopes of ingroup identification on system-justifying beliefs according to experimental condition.

Table 10. Results from path analysis

	<i>b</i>	<i>SE</i>	<i>Z</i>	95% <i>CI</i>	<i>beta</i>
System-justifying beliefs					
Identification	0.105	0.061	1.728 [^]	[-0.014; 0.224]	0.151
Contrast 1 (low status vs. control)	-0.124	0.141	-0.875	[-0.400; 0.153]	-0.089
Contrast 2 (low vs. intermediate status)	0.111	0.119	0.932	[-0.122; 0.344]	0.079
Identification x C1	-0.054	0.099	-0.603	[-0.229; 0.121]	-0.056
Identification x C2	0.156	0.075	2.075*	[0.009; 0.304]	0.174

C1 = first contrast; C2 = second contrast. N = 210. * $p < .05$; [^] $p < .09$

Figure 9. Slopes of ingroup identification on system-justifying beliefs according to three conditions.



Perceived legitimacy of the use of IBD-PPP test

In this case, we used an analysis of variance ANOVA 2 (condition: two groups vs. three groups) x identification. The results showed a significant interaction effect ($F(1, 135) = 8.19, p = .005$) for which the effect of identification on the perceived legitimacy of IBD-PPP use was positive and significant when the ingroup was described as having an intermediate status ($b = 0.58, SE = 0.13, p < .001$). The effect was not significant when the ingroup was described as low in status ($b = 0.07, SE = 0.12, p = .576$).

Discussion

In this study, we aimed to examine if system justification among disadvantaged status group members would be influenced by the presence of a positive downward comparison and the level of ingroup identification. We led participants to believe they belonged to a group based on a fictitious test. Although the group was the same, in one condition it was described as having intermediate status (i.e., presence of comparison with a low-status group condition) while in another it was described as having low status (i.e., absence of comparison with a low-status group condition). All participants of the experimental conditions could compare with a higher-status group, but only the present comparison condition had the opportunity to compare positively with a more disadvantaged status group.

The first hypothesis predicted that participants assigned to the intermediate-status group would justify the system more because they could positively compare themselves with a group in a more disadvantaged-status group. Contrary to this Hypothesis, no significant differences in system justification between the conditions emerged. Participants in the intermediate-status group didn't show significant differences in system justification compared to participants assigned to the control condition and those who did not have the opportunity to make the downward comparison (i.e., absent comparison condition). However, the second Hypothesis whereby the system justification among disadvantaged-status groups would be higher for participants who strongly identified with their group was supported. The system justification appeared to be positively linked to the ingroup identification only in the triadic condition that is when they could compare themselves positively with a more disadvantaged-status group. Differently, when the participants were in the absent comparison condition or in the control condition this association was null. This result supports TSST and SIMSA and confirms the Hypothesis

for which system justification is higher when disadvantaged-status groups can positively compare themselves downwards and people are strongly identified with their ingroup. In addition, the analyses regarding identification with the ingroup seem to be congruent with SIT (Tajfel and Turner, 1979). Identification scores were significantly higher in the control condition, than in both present comparison and absent comparison conditions. This suggests that identifying with a disadvantaged status group is not so easy for participants. However, although the description of the ingroup was identical across experimental conditions, when participants were not offered the opportunity to make a positive downward comparison, the ingroup identification was lower. This result is congruent with results from Caricati and Monacelli (2010) and suggests that belonging to an intermediate-status group can increase ingroup identification with respect to belonging to a low-status group.

The study showed that members of disadvantaged status groups can justify a system when they have the opportunity to compare themselves positively with a more disadvantaged status group if they are strongly identified. The manipulation allowed to modification of the social comparison that the ingroup was enacting. The results showed increased levels of identification with the ingroup and a consequent increase in system justification when the ingroup had an intermediate status. Again, referring to TSST, identification with the intermediate status ingroup could help members satisfy social identity needs through downward comparison, but similarly, downward comparison could in turn help the intermediate status group to satisfy the social identity needs. It should be noted that the procedure used in this study overlapped the effects between status and intergroup comparison. In fact, it was not possible to evaluate the effect due to positive comparison and the social comparison effect separately. In addition, we used

minimal groups with which participants had no previous identification. In order to consider these aspects directly, Study 5 was planned.

Study 5

Aim and Hypothesis

Study 5 was created with the aim of analyzing the role of downward comparison and identification with the ingroup with respect to system support behaviors. Study 4 showed that intermediate-status group members tended to show a positive association between identification and system justification. However, the procedure used in Study 4 did not allow us to differentiate between the effect of group identification and the effect of positive comparison. Indeed, given that being in an intermediate-status position allows members to perform downward positive comparison which in turn results in an increased ingroup identification, the effect of social comparison and identification on system justification are conflated. So, we decided to conduct an experimental study in which the status of the ingroup was manipulated to be intermediate, and the salience of downward comparison was also manipulated to be high or low. Following Study 4, we hypothesized that the system justification would be positively associated with ingroup identification (Hypothesis 1). Moreover, we speculated that comparing with a more disadvantaged-status group could help those who are weakly identified with the ingroup to satisfy the need for social identity and consequently increase the system justification. Thus, we expected that the effect of the salience of the downward comparison on system justification would be stronger when the participants were weakly identified with the ingroup (Hypothesis 2).

Methodology

Sample size

In order to estimate the required sample size we considered a MANOV approach with main effects and interaction considering medium effect size ($f = 0.25$), with $\alpha = 0.05$, $\beta = 0.80$, two groups and one predictor. A sample size of 158 participants was estimated to obtain the desired power. We were able to enroll only 130 participants, so we adopted a simulation approach. We estimated the minimum detectable effect for the interaction with a power of 80%. We used the results of the three-group condition (Study 4) as starting values, and we simulated 5000 series of sample with $N = 130$ by varying the effect of the identification X condition interaction (from 0.10 to 0.30) observing the frequency with which interaction turned to be significant. Results specified that with 130 observations, interaction effects greater than 0.25 were detected with a power of 80%.

Participants and procedure

The questionnaire was administered to male and female students at the University of Parma (belonging to the Department of Economics and Business and the Department of Humanities, Social Sciences and Cultural Industries). The invitation to participate, anonymously and voluntarily, was sent via e-mail to the student's university addresses. 143 participants accessed the questionnaire, but 13 of them were excluded from the analysis because they did not answer it correctly at the manipulation check. Therefore, the final sample analyzed consisted of 130 people of those 94 were females and 36 were males. 52 participants were enrolled in the Department of Economics and Business Sciences and 78 were joined in the Department of Humanities, Social Sciences and Cultural Industries.

The age of the sample was measured by asking the participant to indicate their age class. Fifteen participants belonged to the first age class (18-20 years), 93 (71.5%) had an age between 21 and 29, 9 belonged to the third age class (30-39), 7 fell into the fourth age class (40-49), 5 belonged to the fifth age class (50-59) and only 1 fell into the sixth age class (over 60). All participants in the study were of Italian nationality.

The research protocol was submitted to the ethics board of the University of Parma. Data collection began in March 2023 following ethical approval (No. 0094624).

We asked students to participate in a survey that would investigate their university careers and job prospects. In the informed consent, in addition to clarifying the anonymity of the responses, participants were informed that they would read a short text and would be asked to answer some questions regarding university and employment.

The research procedure consisted of two main phases:

Manipulation of the status

The first phase involved all participants. Students read a newspaper article, fictitious and created ad hoc by the researchers, in which a ranking of the best Italian departments was presented. For a more efficient manipulation, two identical questionnaires were created that differed only in the form of the proposed newspaper articles. It was explained that a ranking of departments belonging to three universities in northern Italy had been compiled based on various criteria such as the availability of the facility, the services provided, and especially the employment prospects that the universities provided for future graduates. The newspaper article aimed to make salient the university student status in the intermediate group (Fig.10). In this way, students in the Humanities Department have read an article in which a specific ranking for their department was discussed. To make the different positions of the universities more

relevant, the averages of the employment income of the graduates from different universities were presented. The participants came to know that their university was ranked in the middle of the hierarchy (with a score of 79), in a better position than the low-status university (score of 57), but worse than the high-status university (score of 91). Similarly, this was done for students of the Economics Department.

In order to make the information as truthful as possible, an authoritative source was cited as the entity that provided the report and the university ranking.

Fig. 10. Article for the manipulation status (version of Humanities Department participants)



I migliori dipartimenti umanistici: la classifica 2022

Scegliere la migliore università significa partire con il piede giusto per una carriera lavorativa di successo. Scopri i migliori dipartimenti umanistici in Italia, grazie all'autorevole classifica stilata dal Censis.

Publicato il 03/03/2023

Ultima modifica il 03/03/2023 alle ore 11:44



Come ogni anno torna la Classifica Censis delle Università italiane, nella quale gli atenei vengono valutati sulla base delle strutture disponibili, dei servizi erogati, del livello di internazionalizzazione, ma soprattutto della occupabilità e dagli sbocchi lavorativi che sono in grado di assicurare.

Fra gli atenei statali, le posizioni più alte della classifica dei migliori Dipartimenti di Studi Umanistici sono quasi esclusivamente occupate da Atenei del Nord Italia. A dominare la classifica è, come gli altri anni, l'**Università di Milano** che conserva il primo posto con 91 punti. L'**Università di Parma** si posiziona a metà classifica

aggiudicandosi un punteggio di 79. Fra le università del nord Italia, l'**Università di Genova** si posiziona più in basso con 57 punti confermando la valutazione degli anni precedenti.

RETRIBUZIONE – La classifica rispecchia anche i dati relativi all'occupabilità e alla retribuzione dei laureati nei Dipartimenti di Studi Umanistici dei tre Atenei. Dall'ultimo Rapporto AlmaLaurea, infatti, emerge come i neolaureati in Studi Umanistici dell'Università di Milano siano tra i più pagati con uno stipendio medio che oscilla tra 1.500 e i 1.600 euro al mese. I neolaureati dell'Università di Parma ricevono uno stipendio medio tra i 1.300 e i 1.400 euro al mese, mentre, i laureati dell'Università di Genova arrivano ad uno stipendio medio che si aggirano tra i 1.100 e i 1.200 euro mensili.

Manipulation of the downward comparison salience

Once the article was read, participants were randomly assigned to one of the two experimental conditions: highly salient comparison, vs. lowly salient comparison. Participants who were assigned to the highly salient comparison condition were asked to read the information regarding the low-ranked university ranking (Fig. 11). The information, which again was created ad hoc by the researchers, was offered as a presentation of the university on the website. The ability to focus on the characteristics of the university allowed us to manipulate the downward comparison salience of students toward the more disadvantaged status group.

Fig. 11. Article used for the manipulation of the downward comparison salience (version of Humanities Department participants)



Presentazione

UniGe compie le proprie missioni di didattica, ricerca e trasferimento tecnologico grazie all'attività di 5 scuole, 22 dipartimenti e 11 ambiti disciplinari organizzati in 3 poli didattici.

La comunità di UniGe è impegnata nel coniugare l'insegnamento teorico con l'attività di ricerca e la pratica professionale.

Le aule di UniGe comprendono sia aule per la lezione frontale che aule adibite alla comunicazione fra studenti, sono presenti inoltre aule adibite a laboratori e aule modulari.

Strutture e servizi

La Scuola superiore dell'Università degli studi di Genova (IANUA) ha l'obiettivo di promuovere e organizzare percorsi di apprendimento superiore pre e post-laurea, integrativi e paralleli rispetto ai corsi universitari ordinari.

"UNO per tutto" è un punto di accesso a libri, articoli di riviste, audio e video delle biblioteche di UniGe, e della Genova University Press (GUP) offerti dal Sistema Bibliotecario di Ateneo (SBA). Ogni Dipartimento mette a disposizione uno sportello di ascolto dedicato agli studenti per tutto il percorso universitario.

Imparare facendo

Sono previsti tirocini di formazione in azienda in Italia e all'estero.

La didattica è integrata con attività laboratoriali, lavori di gruppo con figure professionali che operano sul territorio.

UniGe ha attivato accordi di cooperazione internazionale con università estere per semestri di soggiorno all'estero ai fini di studio o di tirocinio.

Instead, students who were randomly assigned to the low salience condition read a botany essay used in order to distract participants from the previously presented ranking (Fig.12). Reading a neutral text was intended to make the intergroup comparison not salient. However, it should be noted that this condition does not represent a control group since the presentation of the article inherent in the ranking inevitably created minimal activation of the comparison in all participants. Instead, the second phase made the comparison with the most disadvantaged status group more or less salient.

Fig. 12 Essays used as a distractor in the low-salient comparison condition.

Piante primaverili

Gli ellebori sono piante con splendide fioriture primaverili di lunga durata, facilmente coltivabili in giardino non temono il gelo. Richiedono un terreno fresco, ben drenato e fertile, da evitare il ristagno d'acqua che causa il marciume radicale. La maggior parte degli ellebori tollera sia il sole che l'ombra ma apprezzano in modo particolare le posizioni di mezz'ombra sotto le fronde degli alberi.

Fioritura

Gli ibridi di *Helleborus orientalis*, in questo momento in piena fioritura, sono sempreverdi e con fiori di diversi colori, ciò che vediamo non sono petali ma sepali modificati, bianchi, crema, giallo, rosa, porpora, viola e nero e alcuni hanno puntini o venature sulla faccia interna dei sepali. I fiori delle specie botaniche sono generalmente verdi tranne l'*Helleborus niger* dal fiore candido e l'*Helleborus purpurascens*, *atrorubens* e *torquatus* che presentano varie tonalità di porpora.

I narcisi

Tutti i narcisi fanno parte del genere *Narcissus* della famiglia delle Amaryllidaceae. Volgarmente vengono anche usati nomi come tromboni o giunchiglie, ma tali denominazioni possono essere correttamente usate solo per alcuni tipi di questi fiori. I narcisi sono originari dell'area mediterranea, ed esistono più di 60 tra specie, sottospecie e forme spontanee, nonché un centinaio di varietà e ibridi naturali di narcisi, ma è soprattutto il numero di ibridi orticoli a sorprendere: ne sono stati registrati oltre 35000!

Debriefing

At the end of the administration of the scales, the debriefing was presented. Participants were informed that the contents of the articles and information read previously were fictitious and created by the researchers. In this way, participants were informed of the true purpose of the research and the reasons why these artifacts were used.

Once the data collection ended, an e-mail was sent to all addresses used during the recruitment phase to inform or reiterate that the information read within the questionnaire was fictitious. This strategy has been used to inform of the fictitious information of those who had abandoned the questionnaire before the debriefing.

Measures

We considered two different measures of system justification. The university system justification, that is a relevant system in the context of the research and the general economic system justification, that is an irrelevant system in this context. In fact, it has been shown that disadvantaged status groups are more likely to demonstrate system justification when they assess system that are relevant with respect to their disadvantage (Sengupta et al., 2005). For a full list of items see the Appendix.

Economic system justification. The economic system justification was measured through 8 items from the national adaptation (Caricati, 2008) of the economic system justification scale by Jost and Thompson (2000). Participants had to indicate their degree of agreement using a 7-point Likert scale from 1 (“strongly disagree”) to 7 (“strongly agree”) with statements such as "Economic positions are legitimate reflections of people's

achievements" and "If people work hard, they almost always get what they want". Reliability was acceptable ($\alpha = .72$).

University system justification. Kay and Jost's (2003) system justification scale was used and adapted to the university context. The scale consisted of 8 items, to which participants had to attribute, through a 7-point Likert scale, their degree of agreement with statements such as "In general, the national university system is fair", "In general, the national university system operates as it should". Reliability was good ($\alpha = .88$).

Group identification. To measure participant identification, the national identification scale was used, which was adapted to the university context (Owuamalam et al., 2023). The scale consisted of 7 items to which participants had to indicate their agreement on a 7-point Likert scale with statements like "Right now, I appreciate being a student at the University of Parma"; "Right now, being a student at the University of Parma is important to the perception of who I am". Reliability was good ($\alpha = .94$).

Control measures

Manipulation check. The control question was asked in order to check whether the participants were aware of their group's position, they were asked to place the three universities mentioned on a hierarchical "thermometer" scale from 0 ("very low prestige") to 10 ("very high prestige"). Those who failed the manipulation check were eliminated from the analyzed sample.

Results

Manipulation check

In order to verify the effectiveness of the manipulation we conducted a mixed-model ANOVA, in which the prestige of the three universities was added as repeated factor and comparison salience condition was added as independent factor. Results indicated that high-status university was rated as higher in status ($M = 8.69$, $SD = 1.56$) than intermediate-status ingroup university ($M = 6.27$, $SD = 1.60$) which in turn was evaluated as higher in status than low-status university ($M = 4.38$, $SD = 1.98$; $F(2,256) = 274.08$, $p < .001$, $\eta^2_p = .68$, all comparisons $ps < .001$). These evaluations were not affected by manipulated condition as interaction was not significant ($F(2,256) = 1.92$, $p = .149$, $\eta^2_p = .02$) while a significant main effect of condition appeared ($F(1,128) = 4.72$, $p = .036$, $\eta^2_p = .04$) for which participants in salient comparison condition was more high in general status assignment ($M = 6.68$, $SE = 0.152$) than participants in non-salient comparison condition ($M = 6.22$, $SE = 0.147$). On the whole, manipulation of status appeared to be effective.

Preliminary analysis

Zero-order correlations (Table 11) were conducted in order to analyze the associations between the constructs of the study. As we expected from Hypothesis 1, university identification correlated positively with university system justification. Economic system justification was positively correlated with university system justification only. Finally, the university system justification was positively correlated with the salience of comparison. The system justification was higher when downward

comparison salience was high ($M = 3.26$, $SE = 1.08$) rather than low ($M = 2.91$, $SE = 1.06$, $t(128) = 1.90$, $p = .030$, one-tailed).

Descriptive analyses show that participants reported a moderated level of identification as a university student ($M = 4.45$, $SD = 1.59$). While participants do not overly adhere to the justification beliefs of the university system ($M = 3.08$, $SD = 1.08$) and the economic system ($M = 3.18$, $SD = 0.98$).

Table 11. Zero-order correlation of the measures

	1	2	3	4
University identification	-			
University system justification	0.45 ***	-		
Economic system justification	0.05	0.30 ***	-	
Downward comparison salience (0 = low)	0.10	0.17 [^]	0.03	-

[^] $p = .06$; ** $p < .01$, *** $p < .001$; $N = 130$

Hypothesis testing

We tested hypothesis with a path analysis approach in which university and economic system justification were regressed on salience condition (0 = low salience), university identification (grand-mean centered) as well as salience condition X identification interaction. As indicated in Table 12, no significant effects appeared for economic system justification.

Table 12. Results from path analysis.

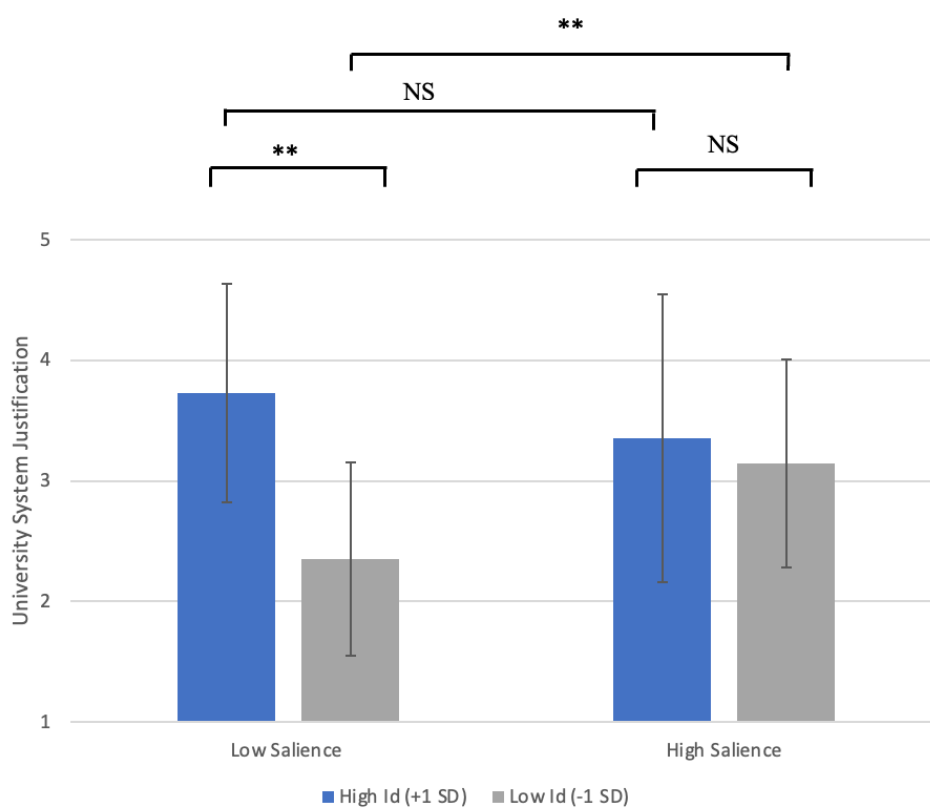
	<i>b</i>	<i>SE</i>	<i>Z</i>	95% CI	β
University system justification					
Comparison salience (0 = low)	0.269	0.163	1.65 [^]	-0.051; 0.589	0.113
University identification	0.428	0.070	6.09***	0.290; 0.566	0.570
Comparison X identification	-0.274	0.103	-2.657**	-0.477; -0.072	-0.248
Economic system justification					
Comparison salience (0 = low)	0.046	0.172	0.267	-0.291; 0.383	0.023
University identification	0.018	0.074	0.238	-0.128; 0.163	0.029
Comparison X identification	0.027	0.109	0.249	-0.186; 0.240	0.030

[^] $p < .10$; ** $p < .01$; *** $p < .001$. $N = 130$

Consistent with Study 4 and as expected from Hypothesis 1, university identification was significantly and positively associated with university system justification, $b = .296$, $SE = .052$, $Z = 5.753$, $p < .001$, $\beta = .451$. The direct effect of the salience of comparison was not significant but, as expected, a significant interaction between ingroup identification and comparison salience appeared. Moreover, as expected from Hypothesis 2, strongly identified participants in the low salience comparison condition were more likely to justify the university system ($M = 3.65$, $SE = 0.171$) than their weakly identified counterparts ($M = 2.29$, $SE = 0.157$; $\Delta M = 1.36$, $SE = 0.238$, $p < .001$). This difference was reduced in high salient comparison condition ($\Delta M = 0.487$, $SE = 0.241$, $p = .044$) although strongly identified participants were still more likely to justify the university system ($M = 3.48$, $SE = 0.159$) than their weakly identified counterparts ($M = 3.00$, $SE = 0.176$). In essence, while salience of comparison did not affect university system justification for strongly identified participants ($\Delta M = 0.165$, $SE = 0.231$, $p =$

.475), weakly identified participants were more likely to justify the university system when downward comparison was highly salient ($\Delta M = 0.704$, $SE = 0.234$, $p = .003$, see Figure 12).

Figure 12. University system justification according to ingroup identification and salience of downward comparison.



Note: bars represent 95% CI

Discussion

In this study, we investigated the association between system justification and ingroup identification among intermediate-status group members. The results confirmed that ingroup identification is associated with system justification among intermediate-status groups. More precisely, results were also supportive of the hypothesis that positive downward comparison helps the intermediate-status group to perceive the existing system as just. Indeed, results demonstrated that while increased salience of downward comparison does not affect the relationship between identification and system justification for members who were strongly identified, higher salience of positive downward comparison increases system justification among weakly identified members. First of all, the study showed that being in the intermediate-status group which allows for a positive downward comparison could increase willingness to justify the system between members who are strongly investing in the ingroup. Moreover, a positive downward comparison could help also members who are weakly investing in the ingroup to evaluate the existing system as just.

To conclude, the results support the idea that the legitimacy of the system is functional to the achievement or maintenance of a positive social identity and that it is conveyed by the possibility of dealing with a lower-status group. This is in line with the assumptions of the TSST, and more generally with the SIMSA, as confronting with an outgroup in a more disadvantaged status position allows members of the intermediate-status group to maintain a positive social identity. In this sense, the downward comparison motivates members of disadvantaged status groups to justify a system in order to preserve the benefits and position of ingroup which although limited, are better than the most disadvantaged status outgroup. The results of this study show that the justification of the system is hardly explainable only in terms of a motivation to support the system (Jost et

al., 2003, 2004; Jost & Banaji, 1994); rather it is a phenomenon that requires a broader analysis and consideration of factors such as ingroup identification and intergroup comparison.

Limits

Two general limitations should be stressed regarding the set of studies related to the intergroup comparison (Study 3, 4, 5) concerning to the artificial groups we used. Although the manipulations used were all successful, having manipulated the group status experimentally may be a limitation. In fact, it cannot be ruled out that participants' responses are in some way influenced by the status of their category in daily life. Future research may seek to replicate studies on intergroup comparison using real group membership present in society.

A further limitation stems from the fact that in the studies presented we have focused on groups in intermediate and disadvantaged positions. As much as it is less paradoxical and therefore more obvious for a high-status group to support the system, this choice prevents us from getting a comprehensive view of social stratification. In the future, it might be interesting to also consider the high-status group within the sample as it would allow us to increase the study of possible comparisons that can be made within a social hierarchy.

Brief conclusion of the chapter

The three studies conducted and encapsulated in this chapter had the overarching goal of analyzing the role of intergroup comparison on system justification, using as a reference the disadvantaged status group in an intermediate position in the social hierarchy.

In the pilot study, it emerged that the opportunity to engage in positive downward comparison allowed the intermediate status group to justify the system more. This result, in line with the assumptions of the Social Identity Model of System Attitudes (SIMSA; Rubin et al., 2023b, 2023a), led to the conception of a second study. The latter also considered identification, which was found to be positively correlated with system justification, but only for participants in an intermediate status position. Finally, with the third study, we aimed to increase the complexity of the research by also considering the salience of comparison with a more disadvantaged status group. It emerged that greater salience of comparison with a more disadvantaged group increases system justification among weakly identified members, but not among those strongly identified. In conclusion, it has been demonstrated that system justification is higher when disadvantaged status groups can positively compare themselves with a more disadvantaged group and when individuals are strongly identified with their ingroup.

The results of the studies are therefore in line with various hypotheses present in the literature, such as those of Social Identity Theory (SIT, Tajfel & Turner, 1979), Triadic Social Stratification Theory (TSST, Caricati, 2018) and SIMSA (Rubin et al., 2023b, 2023a).

Chapter Four

Temporal comparison as an explanation of the system justification processes

General aims of the research project and brief organization of the studies

The next two studies aimed to investigate the role of temporal comparison on system justification in a disadvantaged status group. In these studies, we considered samples of women because while strong progress over time has contributed to greater recognition of women in various fields such as in the workplace, politics, and society (see Huang et al., 2019, Begeny et al., 2020), women are still underrepresented and underpaid compared to men (World Bank, 2023). According to SJT, the system justification (e.g., gender system) by members of disadvantaged status groups (e.g., women) is induced by ideological dissonance and is most evident when identification with the group is weak. In contrast, according to SIMSA (Rubin et al., 2023b, 2023a), people who are strongly identified with their ingroup are those who are most likely to support the system that disadvantages them.

The following two studies wanted to consider the explanations provided by SIMSA regarding temporal comparison and hope.

Study 6

Aim and Hypothesis

According to SIMSA (Rubin et al., 2023b, 2023a), the positive comparison between a disadvantaged status ingroup and a more disadvantaged outgroup can permit the support of the social system because it allows for the realization that there are outgroups in worse positions. SIMSA considers also the explanation of intergroup comparison to temporal comparison. More specifically, members of disadvantaged status groups may perceive that their ingroup has improved over time. A positive temporal comparison can motivate them to support the system because the need for a positive social identity is provided. For example, in a large cross-sectional study Caricati et al., (2021) observed that disadvantaged individuals who evaluated their current outcomes more favorably than their previous achievement were inclined to trust in and support the system responsible for facilitating such favorable comparisons. Perceptions of improvement over time may lead members of disadvantaged status groups to be optimistic about the future. In fact, the members of the disadvantaged group can support that system that has allowed an improvement from the past to the present and that consequently can allow the group to improve in the future. Hope drives members of the disadvantaged status group to support a system that is currently unequal but can support improvement in the future because the system is perceived as a vehicle for promoting group goals and maintaining a positive social identity. Accordingly, Bonetti et al. (2021) found that hope was positively associated with system justification when people strongly identified with the disadvantaged-status ingroup. Moreover, recent studies have shown that members of

disadvantaged-status groups who strongly identify with their ingroup tend to support the system to the extent that they hope for future ingroup improvements (Owuamalam et al., 2016, 2021). SIMSA also expects that people who compare themselves positively with the past can hope for a future ingroup improvement and therefore justify the current system. Following SIMSA, the aim of this study was to analyze whether the gender system justification could be due to identification, favorable temporal comparisons, and hope for future group advancement. More precisely, we hypothesized that identification with ingroup and positive temporal comparison increase the hope for future improvement (Hypotheses 1 and 2) and that the effect of identification on hope would be mediated by perceived positive temporal comparison (Hypotheses 3). We also expected that group identification, temporal comparison and hope would be associated with increased system justification (Hypotheses 4, 5 and 6) and that hope would mediate the relationship between both identification (Hypothesis 7) and positive temporal comparison (Hypothesis 8) on system justification. The expected model is shown in figure 13. As one can see, we had also to opportunity to test a double serial mediation in which effect of group identification on gender system justification is mediated by both temporal comparison and hope for future ingroup improvement.

Methodology

Research design and participants

Study 6 was carried out as a part of a large research project including medical and nonmedical healthcare professionals of Parma's hospital. We used a cross-sectional research design involving a sample of health professionals from the Parma Hospital.

The questionnaire was administered with the online platform Qualtrics. Participation was anonymous, voluntary, and with no reward. A total of 901 people accessed the questionnaire, but only 691 were made by women. 200 participants completed only the initial sociodemographic information or did not provide responses to any items were excluded. Thus, the final sample consisted of 491 women working in the hospital ($M_{age} = 45.32$ years, $SD = 10.$, 26, range = 23, 68). Specifically, the sample was composed of 216 nurses (44%), 98 physicians, 50 health care operators, 6 physiotherapists, 9 obstetricians, 23 laboratory technicians, and 89 participants had another profession not previously reported.

Measures

For a full list of items see the Appendix.

Temporal comparison. We used a single item, following what was already used by de la Sablonnière et al. (2009). This item was used to investigate the perceived improvement or worsening between current and past gender status. The item was: "Compared to 20 years ago, how do you think the equality between men and women is today?" Participants were asked to respond on a 7-point Likert scale (1 = "much worse", 7 = "much better").

Gender identification. Five items from the Schmitt & Branscombe (2002) scale was used. Participants were asked to indicate their degree of agreement on a 7-point Likert scale to statements such as "I value being a member of my gender group" and "I am proud to be a member of my gender group." The reliability was good ($\alpha = .97$).

Hope for future ingroup advancement. Three items adapted from Owuamalam et al. (2021) were used. Participants were asked to indicate, on a 7-point Likert-type scale (1 = “totally disagree”; 7 = “totally agree”), their agreement with the statements “I have hope that men and women will be treated equally in a few years”, “I am hopeful that women will achieve equality with men in a few years”, and “Inequality between men and women will never disappear”. Reliability was acceptable ($\alpha = .67$).

Gender system justification. We used the Jost & Kay’s (2005) scale consisting of 8 items to which participants indicated their degree of agreement on a 7-point Likert-type scale (1 = “totally disagree”; 7 = “totally agree”). Some items were: “The division of labor generally operate as it should” and “Women and men have a fair shot at wealth and happiness”. The reliability was good ($\alpha = .73$)

Results

Correlational analysis

We computed zero-order correlations to examine the association between the considered measures. All constructs were positively correlated with each other (Table 13). Specifically, hope was positively correlated with both system justification and gender identification. Gender identification showed a positive correlation with temporal comparison; hope also showed a positive correlation with temporal comparison which in turn showed a significantly positive correlation with gender system justification. Finally, gender identification was also positively and significantly correlated with system justification.

Table 13. Zero-order correlation of the measures

	1	2	3	4
1. Gender Identification	-			
2. Hope	0.13 **	-		
3. Temporal Comparison	0.22 ***	0.47 ***	-	
4. Gender SJ	0.12 **	0.49 ***	0.43 ***	-
<i>M</i>	5.90	3.32	4.02	2.94
<i>SD</i>	1.46	1.42	1.43	0.94

** $p < .01$, *** $p < .001$; $N = 491$

Hypothesis testing

The hypotheses were tested using path analysis approach with maximum likelihood estimation and robust standard error. Path are showed in Figure 13 and unstandardized results are presented in Table 14. As indicated, the direct effect of gender identification on hope was not significant ($\beta = .03$, $SE = .04$, $p = .414$) but, according to Hypothesis 1, the total effect was significant ($\beta = .13$, $SE = .041$, $p < .002$) indicating, as expected by Hypothesis 3, a mediation effect of temporal comparison ($\beta = .10$, $SE = .02$, $p < .001$). Temporal comparison, in turn and as expected from Hypothesis 2, was positively linked to hope ($\beta = .46$, $SE = .04$, $p < .001$). Gender identification was also positively linked to temporal comparison ($\beta = .22$, $SE = .04$, $p < .001$). As expected from Hypothesis 5 and 6, gender system justification was positively linked to temporal comparison ($\beta = .25$, $SE = .03$, $p < .001$) and hope ($\beta = .37$, $SE = .03$, $p < .001$), while no significant direct effect appeared with respect to gender identification ($\beta = .02$, $SE = .03$, $p = .70$). Again, however,

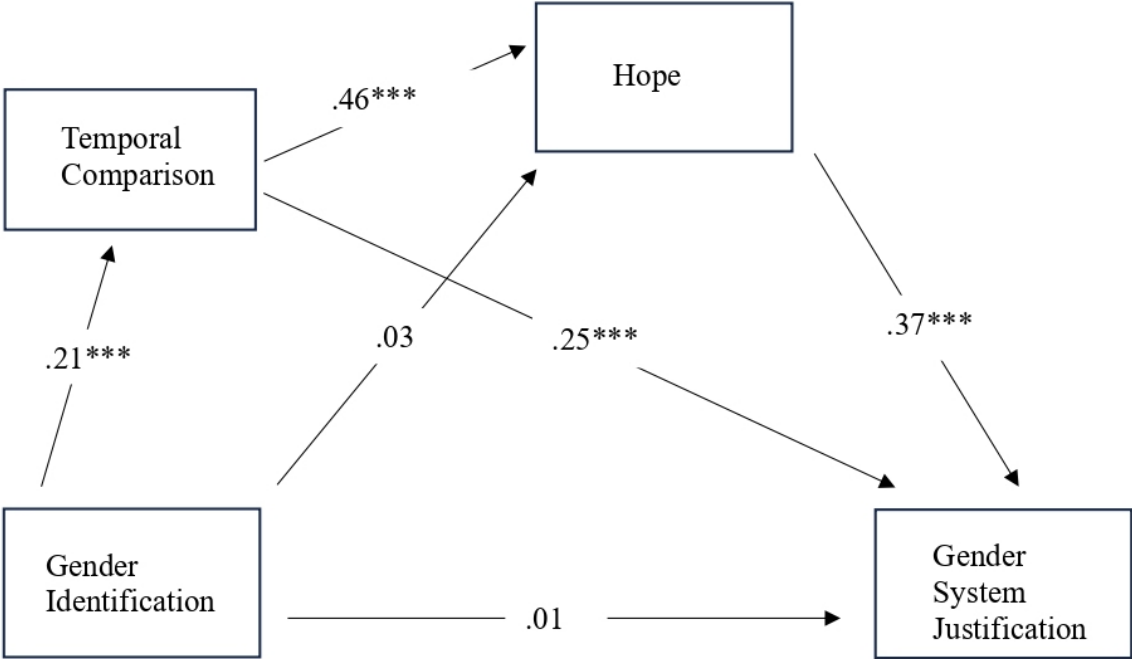
according to Hypothesis 4, the total effect of gender identification on system justification was significant ($\beta = .12$, $SE = .03$, $p < .005$) and it was mediated by temporal comparison ($\beta = .05$, $SE = .01$, $p < .001$) and double mediated by temporal comparison and hope ($\beta = .04$, $SE = .01$, $p < .001$). Contrary to Hypothesis 7, hope – when considered alone - did not mediated the effect of ingroup identification on system justification. Finally, the effect of temporal comparison on system justification was partially mediated by hope ($\beta = .17$, $SE = .02$, $p < .001$) as predicted by Hypothesis 8.

Tab. 14 Direct, indirect and total effects

	<i>b</i>	<i>SE</i>	<i>p</i>	95% <i>CI</i> <i>low</i>	95% <i>CI</i> <i>high</i>	β
Gender system justification						
Hope	0.248	0.029	< .001	0.192	0.305	0.371
Gender Identification	0.010	0.026	0.698	-0.041	0.061	0.015
Temporal Comparison	0.163	0.029	< .001	0.107	0.220	0.249
Hope						
Gender Identification	0.033	0.040	0.414	-0.046	0.112	0.033
Temporal Comparison	0.450	0.040	< .001	0.372	0.529	0.460
Temporal Comparison						
Gender Identification	0.217	0.044	< .001	0.130	0.305	0.215
Indirect effect						
Id -> Temp comparison -> Hope	0.098	0.022	< .001	0.055	0.141	0.099
Id-> Temp comparison->Gsj	0.036	0.010	< .001	0.015	0.056	0.054
Id->Hope->Gsj	0.008	0.010	0.398	-0.011	0.027	0.012
Temp comparison->Hope->Gsj	0.112	0.018	< .001	0.076	0.147	0.171
Id-> Temp comparison->Hope->Gsj	0.024	0.006	< .001	0.012	0.037	0.037
Total effect						
Id -> Hope	0.131	0.041	0.002	0.050	0.212	0.132
Id->Gsj	0.078	0.028	0.005	0.023	0.133	0.118
Temp comparison -> Gsj	0.275	0.031	< .001	0.215	0.336	0.420

Note: Id = Gender identification; Temp comparison = temporal comparison, Gsj = Gender system justification

Figure 13. Mediation model



*** $p < .001$, $N = 491$; standardized coefficients are reported.

Discussion

Study 6 provided results that support SIMSA's assumptions regarding group-based motivations responsible for the system to be justified in order to maintain a positive social identity. An interesting result can be found with respect to the identification that has not shown a significant direct effect on hope. However, results also indicated that the effect of identification on hope was completely mediated by positive temporal comparison. Therefore, the more women identified with ingroup the more they perceived a positive temporal comparison and this led them to hope for future improvement. The results are supportive for SIMSA showing that the possibility of a positive temporal confrontation with the past encourages members of the disadvantaged status group to hope for the future. The hypothesis for which the effect of ingroup identification on system justification would be mediated by hope was not supported, but we discovered a double serial mediation indicating that the effect of identification on system justification was mediated by both temporal comparison and hope. Thus, it seems that the effect of identification on system justification would be explained by the increased attitude toward temporal comparison and hope. It seems that women who believed that an improvement over time in gender relations occurred tended to support the existing unequal system because past positive comparisons tended to influence a positive hope for the future. These results are consistent with SIMSA (Rubin et al., 2023b, 2023a) suggesting that identification is associated with gender system justification, varied depending on the possibility of making positive temporal comparisons and hoping in future ingroup advancement.

Limits

One of the limitations of the study is certainly related to the measure of temporal comparison. In fact, we had asked participants to indicate whether they thought equity between men and women had improved or worsened from 20 years ago. The temporal comparison was measured but not manipulated. This made the temporal comparison very subjective and did not allow us to know to which dimensions of temporal comparison the participants referred. This entails that we are not able to know whether the system justification was induced only by hope (as theorized by SIMSA) or whether it was also influenced by uncertainty (according to SJT). In fact, according to Jost the system justification can arise from avoiding the uncertainty of an unknown reality (Jost et al., 2004). With respect to this limitation, we decided to conduct an experimental study in which a temporal comparison was manipulated rather than measured.

Study 7

Aim and Hypothesis

The previous correlation study provided some indications about the nature of the role of hope and the temporal comparison on system justification. However, study 6 could not provide us with consistent indications that the system justification was caused by temporal comparison and hope. The aim of study 7 was to investigate whether the perception of temporal changes over time and the hopes of future improvements, could influence the tendencies to justify the system. Following SIMSA (Rubin et al., 2023b, 2023a), the system justification is linked to a positive comparison with the past. The optimism that arises from the comparison with a past condition pushes the members of disadvantaged status groups to hope for future improvement. In this way, disadvantaged status groups justify a system that allows them (a) to perceive themselves in improved disadvantaged position and (b) to hope for a future improvement of ingroup.

We carried out experimental research in which the temporal comparison was manipulated at two levels: stable vs. upwardly unstable. The manipulation consisted of presenting a newspaper article that exposed the instability or the instability over time of the gender relationship. Following what emerged from the previous study, we expected to find that the temporal comparison would be linked to hope. In particular, we expected to find that exposure to a scenario where an upwardly unstable gender system was presented (that is, a thinning of the differences between men and women) would increase hope (Hypothesis 1). Furthermore, in Study 6 we did not measure how relevant the comparison was for women. Indeed, it has been shown that situational comparisons (e.g., people's attempt to

infer or judge their own abilities from those of others) tend to be visible only when the comparison is meaningful to people (e.g., Gerber et al., 2018; Kamarova et al., 2021). Therefore, the impact of temporal comparisons might also depend on how relevant such evaluations are for women (e.g., Kruglanski & Mayseless, 1990). Therefore, we also hypothesized that the association would be stronger for women for whom such assessments were relevant to themselves (Hypothesis 2). We expected also that the hope could be associated with system justification (Hypothesis 3). Finally, we expect to find a moderated-mediation effect whereby the effect of temporal comparison on the gender system justification should be explained by hope, with the effect particularly visible among women who find such comparison relevant (Hypothesis 4).

Methodology

Research design and participants

The research was evaluated and approved by the university ethics committee (no. 0064712). Participants were informed that completion of the questionnaire was voluntary, anonymous and that the data would be used only in aggregate and not shared with other parties. Participants also learned that they could leave the research at any time and that at the time they began the research they were agreeing to participate. Students from two universities, the University of Parma and the University of Malaga, were involved. The invitation to participate in the research was sent via institutional email to the students. An online questionnaire was created on the Qualtrics platform and was administered to 213 Italian women and 79 Spanish women ($M_{age} = 26.27$, $SD = 8.18$).

Manipulation of the temporal contrast

An experimental design with two experimental conditions was used:

- 1) One condition corresponded to a positive temporal comparison.

2) One condition corresponded to a stable and negative temporal comparison.

Participants were randomly assigned to the experimental conditions. Specifically, 146 participants were in the negative temporal condition and 146 were in the positive temporal condition. The manipulation was based on that already used by Owuamalam et al., (2021) and was based on the presentation of a fictitious journal article created ad hoc by the researchers. In the positive temporal contrast condition, a newspaper article (Fig. 14) was presented in which the decrease in the gender pay gap was described. It was explained that according to the National Statistical Institute, an improvement in the gender pay gap emerged over the past 20 years. The information was presented along with a graph illustrating the narrowing of the gender pay gap in the country. In the negative temporal comparison condition, participants read a newspaper article (Fig. 15) in which they were informed that the gender pay gap had been on a stable trend, noting a stalemate over the past 20 years. The two articles, very similar in appearance, differed in the content of some parts of the text and the graph so that the effect of the comparison with the past could be manipulated, on the one hand, positive and therefore unstable over time, and on the other hand, negative and stable.

Fig. 14 Article used to manipulate the positive comparison with the past

Il Sole **24 ORE**

Le donne e l'obiettivo della piena parità

di **Azzurra Rinaldi**

Il mondo del lavoro può essere un contesto di forte discriminazione, in particolare per le donne. Sono queste ultime, infatti, a trovare maggiore difficoltà nel conciliare gli impegni lavorativi con quelli familiari, specie quando sono presenti figli nella coppia. Non è tutto: storicamente le donne hanno dovuto fare i conti con stereotipi e pregiudizi che hanno pesantemente inciso sui loro percorsi di vita, dall'infanzia fino

alla scelta degli studi e poi l'ingresso nel mondo del lavoro. L'ultima indagine ISTAT ha analizzato l'evoluzione delle differenze fra maschi e femmine nel mondo del lavoro. Quanto ha rilevato l'indagine mostra che ancora nel 2021 erano presenti differenze fra uomini e donne in particolar modo rispetto ai livelli retributivi dei due generi. La buona notizia è che i dati evidenziano una sostanziale riduzione di questa disuguaglianza

nel tempo. A quanto appare, infatti, in Italia il divario retributivo di genere è diminuito da 20 anni a questa parte. Fra i molti grafici riportati nella relazione ISTAT 2022, quello che riporta l'andamento del divario salariale fra maschi e femmine è particolarmente illuminante: nel 2001 gli uomini guadagnavano in media (e a parità di occupazione lavorativa) il 27% in più delle donne, nel 2021 la differenza è scesa al 10,7%.

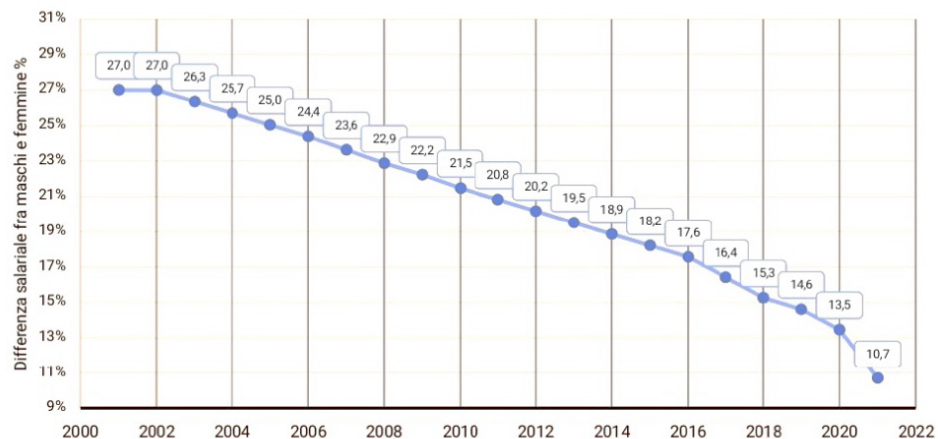
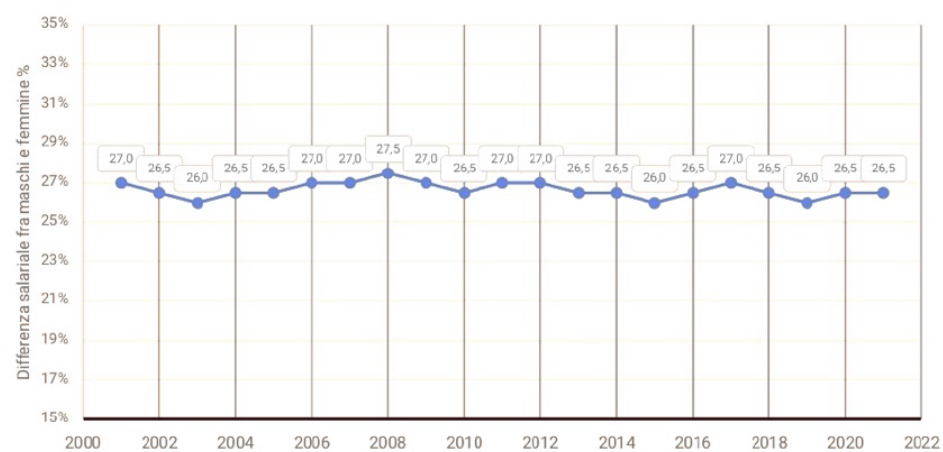


Fig. 15 Article used to manipulate the negative comparison with the past



Measures

For a full list of items see the Appendix.

Hope for future ingroup advancement. Five items adapted from the scale of Owuamalam et al., (2021) were used to assess participants' hope for improvement in their ingroup. Some items were, for example, “I am hopeful that women will achieve equal pay with men in the next two years”, and “It is certainly possible that one day, women will earn equal pay as men do for the same job based on emerging trends”. Reliability was good ($\alpha = .78$)

Gender system justification. Eight items of Jost & Kay's (2005) scale were used to assess the tendency to legitimize gender inequality. Some examples were: “In general, relations between men and women are fair”, and “Society is set up so that men and women usually get what they deserve”. Reliability was good ($\alpha = .76$)

Economic system justification. Eight items adapted from the scale of Owuamalam et al., (2021) were used to assess the tendency to legitimize economic inequality. Some examples were: “I feel that different social groups earn the economic position they get”, and “Differences in economic position between different social groups in our society are the result of injustice”. Reliability was excellent ($\alpha = .93$)

Relevance of temporal comparison. Was measured with 3 items, adapted from Chun et al. (2018) asking participants to indicate on a 7-point Likert-type scale (1 = completely disagree, 7 = completely agree) how relevant it was to them to consider temporal comparison in their assessment of gender differences. The items were “In economic matters, I think it is useful to compare past and existing gender differences”, “In economic matters, I think it is useful to consider past and existing gender differences”,

“In economic matters, I think it is useful to stress comparison of past and existing gender differences”. The reliability was $\alpha = .66$.

Control measures

Manipulation check. The effectiveness of the manipulation check was assessed by asking participants to indicate if the gender pay gap has improved or if it has worsened. We used a 5-point Likert scale (1 = much worse, 5 = much better)

Results

Manipulation check

Firstly, we checked the effectiveness of the manipulation via analysis of variance ANOVA considering objective temporal contrast (negative vs. positive) and sample (Italy vs. Spain) as independent predictors of perception of improvement/worsening of the gender pay gap over time. The results indicated that the only significant effect was due to objective temporal contrast condition, $F(1, 288) = 40.12, p < .001, \eta_p^2 = .13$, indicating that, in both samples, participants were more likely to believe that gender equality was much improved in the positive temporal contrast condition ($M = 3.90, SD = 0.58$) than in negative temporal contrast condition ($M = 3.40, SD = 0.74$).

Preliminary analysis

Zero-order correlations analysis was performed to verify the association between the examined constructs (Table 15). Temporal contrast condition (0 = negative) was

positively correlated with hope which in turn was positively correlated with both gender and economic system justification. No significant associations appeared between temporal contrast condition and system justification measures nor between the relevance of temporal comparison and other measures. Importantly, objective temporal contrast condition and relevance of temporal comparison were uncorrelated indicating that they can be considered as orthogonal with respect to each other.

Table 15. Zero-order correlations of the measures

	1	2	3	4	5
1. Hope	-				
2. Gender system justification	.32**	-			
3. Economic system justification	.21**	.63**	-		
4. Relevance of temporal comparison	.03	.08	.09	-	
5. Objective temporal contrast (0 = negative)	.36**	-.04	-.04	-.10	-
<i>M</i>	3.99	2.98	2.21	4.32	0.50
<i>SD</i>	1.28	0.85	0.93	1.43	0.50

** $p < .01$; $N = 292$

Hypothesis testing

In order to test the main hypothesis, we used a path analysis in which condition (dummy coded with 0 = negative objective temporal contrast) was the predictor, hope was the mediator and gender, and economic system justifications were the outcomes. Path are showed in Figure 16 and unstandardized results are presented in Table 15. The relevance of temporal comparison was added as a moderator of the path from temporal contrast to

hope. Given that we collected data in two countries, we initially checked whether the tested model was equivalent across samples. More precisely, we compared a multi-group model in which regression coefficients were left free to vary across samples, with a multi-group model in which regression coefficients were forced to be the same across samples. The results revealed that the models were equivalent ($\Delta\chi^2(10) = 9.82, p = 0.456, \Delta AIC = 10.17, \Delta BIC = 46.94$) indicating that the effects among variables were not significantly affected by the nationality of the sample. Thus, we collapsed the samples and ran a subsequent analysis on the whole dataset.

As expected from Hypothesis 1, the results show that hope was stronger in the positive temporal contrast condition ($M = 3.90, SE = .21$) than in the negative temporal contrast condition ($M = 2.93, SE = .23, p < .001$). Also Hypothesis 2 was confirmed, showing that the relevance of temporal comparison moderated the relationship between temporal contrast and hope. In fact, the results indicated that the difference in hope between negative and positive objective temporal contrast conditions was stronger for those women who perceived temporal comparison as highly relevant ($b = 1.20, SE = 0.18, p < .001$ vs. $b = 0.75, SE = 0.16, p < .001$; $\Delta b = 0.45, SE = 0.20, p = .026$). As we expected from Hypothesis 3, hope was positively related to gender and economic system justification. Hope was positively linked to gender and economic system justification. Also, hope mediated the association between temporal comparison and both gender and economic system justification.

Moreover, as expected from Hypothesis 4, the indirect effect of objective temporal contrast on gender system justification via hope (e.g., conditional mediation) was stronger for women who assigned more relevance to temporal comparison ($b = .30, SE = .06, p < .001$) compared to those women that assigned low relevance to it (indirect effect $b = .19, SE = .05, p < .001, \Delta b = .11, SE = .05, p = .035$). Equivalent results were observed for

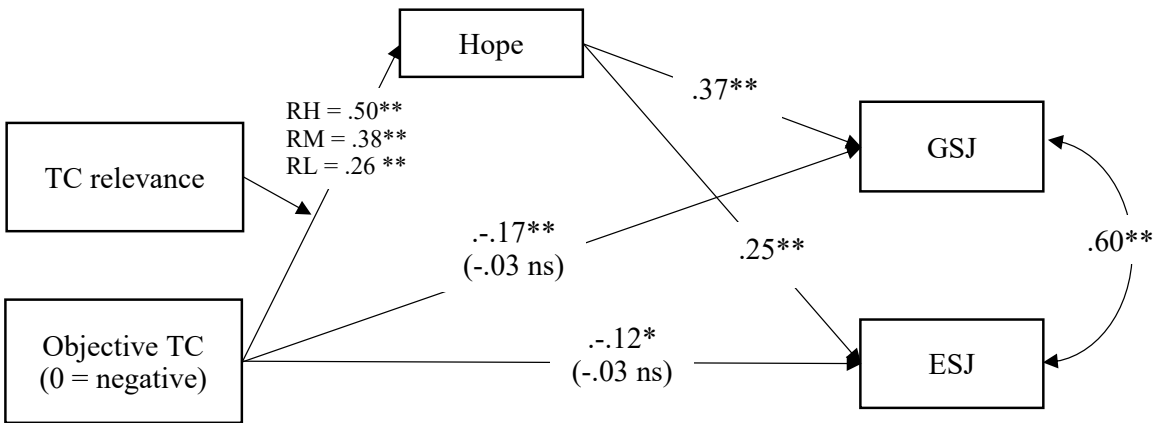
economic system justification (indirect effect for women high in temporal comparison relevance: $b = .21$, $SE = .06$, $p = .001$; indirect effect for women low in relevance of temporal comparison: $b = .13$, $SE = .04$, $p = .003$, $\Delta b = .08$, $SE = .04$, $p = .05$). The direct effects of temporal contrast condition for gender system justification was stronger in the negative temporal contrast condition ($b = 1.94$, $SE = .19$) than in the positive contrast condition ($b = 1.65$, $SE = .21$). Similarly, economic system justification was higher in negative condition ($b = 1.46$, $SE = .22$ vs. $b = 1.23$, $SE = .24$). This can be due to be a suppression effect in which the increasing of system justification when objective temporal contrast is negative (which might be due to social constraints) is suppressed by the positive effect of increased hope in the positive temporal contrast condition. The result is that the total effect of positive vs. negative objective temporal contrast disappears.

Table 15. Results from path analysis

	<i>b</i>	<i>SE</i>	95%CI	β
Hope				
Objective TC (0 = negative)	0.97**	0.14	[0.70; 1.24]	0.38
TC relevance	-0.02	0.05	[-0.11; 0.08]	-0.02
Interaction	0.16*	0.07	[0.02; 0.29]	0.12
Gender system justification				
Objective TC (0 = negative)	-0.28**	0.10	[-0.48; -0.09]	-0.17
Hope	0.25**	0.04	[0.17; 0.32]	0.37
Economic system justification				
Objective TC (0 = negative)	-0.23*	0.11	[-0.45; -0.003]	-0.12
Hope	0.18**	0.05	[0.09; 0.26]	0.25
Indirect effects				
Objective TC -> Hope -> GSJ	0.24**	0.05	[0.15; 0.35]	0.14
Objective TC -> Hope -> ESJ	0.17**	0.05	[0.09; 0.28]	0.09
Conditional indirect effects on GSJ				
Low TC relevance	0.19**	0.05	[0.08; 0.29]	0.10
High TC relevance	0.30**	0.06	[0.17; 0.45]	0.19
Conditional indirect effects on ESJ				
Low TC relevance	0.13**	0.04	[0.05; 0.24]	0.06
High TC relevance	0.21**	0.06	[0.10; 0.35]	0.12
Total effects				
Objective TC -> GSJ	-0.04	0.10	[-0.24; 0.15]	-0.03
Objective TC -> ESJ	-0.05	0.11	[-0.27; 0.17]	-0.03

Note: TC = Temporal comparison; GSJ = Gender system justification; ESJ = Economic system justification. 95%CI are based on Monte Carlo simulation

Figure 16. Mediated moderated model



* $p < .05$, ** $p < .01$.

Standardized coefficients are reported. N = 292. Temporal comparison (TC) relevance was grand-mean centered. GSJ = Gender system justification; ESJ = Economic system justification; RH = High value of relevance of temporal comparison (+1SD); RM = Mean value of relevance of temporal comparison; TL = Low value of relevance of temporal comparison (-1SD)

Discussion

In the light of the data emerging from the correlation study, which showed that a positive temporal comparison could lead to hope for the future and to justify the system, experimental research was carried out in which the temporal comparison was manipulated. The aim of the research was to test SIMSA's hypothesis through an experimental study in which the stability/instability of the temporal comparison was manipulated. The results showed that women who were led to believe that the gender situation has improved compared to the past, tended to support the gender and economic system more, to the extent that they hoped for future ingroup improvements. Knowing that gender inequality is unstably pushed women to hope for more gender equity in the future. It also emerged that the trend was particularly visible for women who attached a high degree of importance to the temporal comparison. Therefore, the temporal comparison plays an important role in the hope of the future improvement of the ingroup in the measure in which the appraisals of the past are favorable. Hope, in turn, was associated with an increase in economic and gender system justification. However, unexpected and interesting results have emerged. A negative relationship has emerged between the positive temporal contrast and the system justification. This result, which appears to contradict the assumption of a positive relationship proposed by SIMSA, could be due to the suppression effect derived from the methodological approach used that would lead to considering the effect null. An alternative explanation could be traced back to other mechanisms that work together with hope and that influence the processes of system justification. In fact, according to SIMSA, the disadvantaged status group could support a system for a need for social accuracy, accepting the reality in which members of disadvantaged status groups are inserted (Owuamalam et al., 2019b, 2019a; Rubin et al., 2023a). Compared to this study, having made people believe that the gender system

was unfair, but stable over time, may have influenced women to perceive an immutable and impermeable system and to accept reality as it is, supporting it. When it was communicated that the system was improving and therefore unstable (condition of positive temporal constriction) the social constraint diminished because it was more real the possibility of changing the ingroup condition. In fact, this would explain the result of the positive temporal contrast condition. Women who have faced an unstable gender hierarchy have justified the system by hoping for future improvement, indicating that the constraints of social reality are less evident when mechanisms of hope are present.

Brief conclusion of the chapter

The two studies presented in this chapter aimed to investigate the role of temporal comparison in the system justification by a disadvantaged status group consisting of women. In the first correlational study, it emerged that women who perceived an improvement in gender relations related to the past seemed inclined to support the current unfair system. This was because positive comparisons with the past appeared to positively influence hope for the future. The results also suggest that identification is linked to the gender system justification and this relationship varies depending on the possibility of making positive temporal comparisons and developing hopes for the future progress of their group.

The second study showed that women in a condition of hierarchical instability tended to hope for greater future gender equity, especially those who considered temporal comparison important. The study thus demonstrated that hope is associated with system justification, and temporal comparison can be crucial in influencing hope, particularly when the past situation is viewed positively.

Through these studies, it has been demonstrated that (a) identification is associated with system justification, and (b) system justification behaviors are associated with explanations such as temporal comparisons and hope for future progress of the ingroup. In this case, as well, the results align with SIMSA (Rubin et al., 2023b, 2023a), which posits that support for an unequal system cannot be explained solely through an autonomous motivation for system justification.

Chapter Five

*“Non sarò mai abbastanza cinico da smettere di credere
che il mondo possa essere migliore di com'è
Ma non sarò neanche tanto stupido da credere
che il mondo possa crescere se non parto da me”*

Brunori Sas

Conclusions

Legitimizing behaviors, as well as non-opposition to the existing unequal system, are paradoxical attitudes for members of disadvantaged status groups. In fact, those who should have interest in rebel and oppose the unfavorable system in some cases support the status quo and consequently also their own disadvantage. Given the negative consequences of such behaviors, it is crucial to understand why and in what situations disadvantaged status groups support the system in which they live. This work summarizes the path of study and research that has set the overall goal of analyzing the processes of justification of the inequitable social system and the impact of these on disadvantaged status groups. We were guided by one main question: why do members of disadvantaged status groups justify a system that penalizes them? The study of the literature revealed two main conflicting views with respect to why disadvantaged status groups support a non-beneficial system. On one hand, System Justification Theory (SJT, Jost & Banaji, 1994, Jost et al., 2004) assumes an almost total absence of identity processes in justification processes since these are initiated by an autonomous and specific motivation that encourages people to believe that the system in which they are placed is just and legitimate. On the other hand, the Social Identity Model of System Attitudes (SIMSA; Owuamalam et al., 2019b, 2019a; Rubin et al., 2023a) suggests that social legitimation processes intersect with identity processes indicating how the need for positive social identity and the desire to protect group interests can motivate disadvantaged status groups to support an unjust system. It appeared, therefore, that the analysis of the role of identity processes in the dynamics of system justification was still poorly delineated. We therefore wanted to further investigate the relationship between identification and system

justification by conducting a meta-analytic review that could, in general, increase knowledge about the association between social identification and system justification and, more specifically, clarify the direction of the association between the constructs. It turned out that the hypothesis of an autonomous motivation to justify the system appears to be not sufficient to explain and understand the phenomenon of system justification, especially in the case of low-status groups. Instead, we noticed that system justification is influenced by the type of identity activated. In other words, members of the disadvantaged status group tend to support an unfair system if they are identified at a superordinate level (e.g., with a national system), and this result appears more congruent with SIMSA (Owuamalam et al., 2019a-b; Rubin et al., 2023a-b), albeit SJ theorists have recently conceded that overarching identification can be linked to system justification (Jost et al., 2023; Jost, 2020). In contrast, members of disadvantaged status groups are less tolerant of supporting the status quo if they have a strong political consciousness and a critical view of the ingroup's position within society. Interestingly, the most discordant point between the two theories, which is the relationship between status quo support and ingroup identification, appeared to be null. While SIMSA assumes a positive association between ingroup identification and system justification because the latter may be functional in achieving or maintaining a positively distinct social identity, SJT assumes a negative relationship, assuming that the need to justify the system does increase when it is not in conflict with social identity. This suggested that the dynamics of system justification are complex and that the support for an inequitable system may vary depending on the type of identification of members of disadvantaged status groups. With the aim of further investigate the motivations for system justification among the most disadvantaged, we conducted studies examining the SJT and some SIMSA assumptions (i.e., downward comparison with a lower status outgroup, hope for future ingroup status,

temporal comparison, superordinate ingroup bias). Specifically, comparison - whatever it may be - was the main explanation behind the design of the research. Indeed, some of the eight SIMSA explanations, suggest that system justification among members of the disadvantaged status group can be explained by the possibility of positive comparison with a more disadvantaged status group or a worse temporal condition in the past.

To begin with, in the first study we analyzed interviews conducted with homosexual people searching whether sexual minorities justify the system that disadvantages them and, if they do, what explanations they provide to explain inequality. Interestingly, although participants did not report system justifying, they still adopted some strategies that allowed them to maintain a positive social identity. In fact, respondents reported enacting several explanations that lead back to SIMSA's approach, such as temporal comparison (e.g., stating that discrimination against homosexuals in the past was worse), downward intergroup comparison (e.g., stating that transgender people are more discriminated against than homosexuals), and hope (e.g., showing hopefulness toward future ingroup improvement). Therefore, we wondered whether the difficulty of positive comparison with a more disadvantaged status group could affect justification processes. In fact, if comparison allows system support, then people in a very disadvantaged position should have more difficulty justifying the system because they cannot compare positively downward (SIMSA, Owuamalam et al., 2019a-b; Rubin et al., 2023a-b). Instead, according to SJT (Jost & Banaji, 1994, Jost et al., 2004) people with the greatest need for change are at the same time, paradoxically, the least likely to challenge and change the system and consequently tend to support the system more. Study 2, conducted with a highly disadvantaged sample, showed that migrants, asylum seekers and refugees reported low levels of both meritocratic and hierarchical system justification and a positive association with ingroup identification (supporting SIMSA's assumptions). Note

that identification was positively related to system justification, but it also played a protective role in increasing people's well-being even in a situation of particular social disadvantage. This result is consistent with the social cure approach which stresses the role of social identification as a determinant of individuals' health (Haslam et al., 2018; Jetten et al., 2012)

The further set of studies was aimed at investigating the role of intergroup comparison and ingroup identification on system justification among members of disadvantaged status groups (studies 3, 4, 5). Studies 3 and 4 indicated that group members in the intermediate-status position (i.e., those who have the opportunity to compare favorably with a more disadvantaged status group) tended to justify the system more than those who were prevented from performing a downward comparison. In addition, Study 4 showed that ingroup identification enabled members of the intermediate-status group to satisfy social identity needs through positive downward comparison and, at the same time, comparison enabled members of the intermediate-status group to satisfy social identity. In general, the studies supported what SIMSA expressed, but Study 4 showed that the effect of group identification overlapped with the effect of intergroup comparison. In Study 5, the use of a double manipulation (of intermediate status and of the downward comparison salience) helped to disentangle the effect of downward comparison and ingroup identification indicating that system justification was linked to both ingroup identification and positive downward comparison. These results appeared to be supportive of the expectation that the intermediate position in a social stratification enables members of the disadvantaged status group to acquire and maintain a positive social identity.

The last set of studies (Studies 6 and 7) considered the role of temporal comparison and hope on system justification among low-status group which was

operationalized in term of gender (i.e., women). More precisely, we conducted two studies with samples of women to investigate the role of temporal comparison and hope in the justification processes of the gender system. Study 6 showed that identification is linked to system justification also in an indirect way: positive comparison with the past prompted women to hope for future improvement and justify the unfair gender system and mediated the effect of gender identification on system justification. These results suggested us to conduct a further experimental study (Study 7) in which we manipulated, rather than measured, the positive (vs. negative) temporal comparison with the past. The results indicated that women who were led to believe that gender relations had improved compared to the past were more supportive of the gender and economic system to the extent that they hoped for future improvements. Moreover, this propensity was more visible for women who believed that temporal comparisons were relevant.

To conclude, the research program aimed to analyze tolerance and legitimization of an unequal social system in a variety of minority groups. In general, results provided support for the idea that system justification is related to social identification, more than to an autonomous motivation to justify the system. This seems to highlight that social legitimation is associated with complex explanations that go beyond individual dispositions (such as motivation to justify the system) and that comprise instead relational and interactive processes such as intergroup and temporal comparisons, as the perception of stability/instability and hopes for future *collective* improvement. Present results help to increase knowledge of some of the processes involved in the maintenance of an inequitable social system that is legitimized – in a clear dialectical and relational way - not only by dominant social groups, but sometimes by disadvantaged ones as well.

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Appendix

Study 2

Measures of system justification

Economic system justification (Jost and Thompson, 2000)

- ◆ There are many reasons to think that the economic system is unfair
- ◆ Most people who don't get ahead in our society should not blame the system; they have only themselves to blame
- ◆ It is unfair to have an economic system which produces extreme wealth and extreme poverty at the same time
- ◆ Economic differences in the society reflect an illegitimate distribution of resources
- ◆ Economic positions are legitimate reflections of people's achievements
- ◆ If people work hard, they almost always get what they want
- ◆ There are no inherent differences between rich and poor; it is purely a matter of the circumstances into which you are born

Just world belief scale (Dalbert et al., 1987)

- ◆ I am confident that justice always prevails over injustice
- ◆ I believe that, by and large, people get what they deserve
- ◆ I am convinced that in the long run people will be compensated for injustices

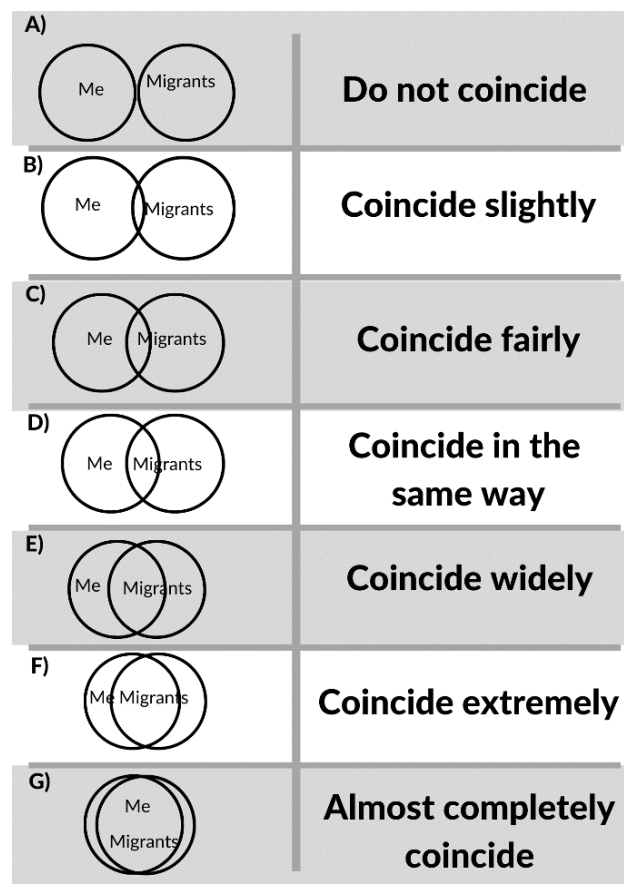
Social dominance orientation (SDO, Sidanius & Pratto, 2001)

- ◆ It is probably a good thing that certain groups are at the top and other groups are at the bottom
- ◆ Superior groups should dominate inferior groups
- ◆ To get ahead in life, it is sometimes necessary to step on other groups.
- ◆ If certain groups of people stayed in their place, we would have fewer problems
- ◆ It would be good if all groups could be equal
- ◆ All groups should be given an equal chance in life
- ◆ We should do what we can to equalize conditions for different groups
- ◆ No one group should dominate in society

Justice beliefs about global inequality (Reese et al., 2014)

- ◆ I think it is justified that people from developed countries have better chances in life than people from developing countries
- ◆ Overall, I think that the inequality between developed and developing countries is somewhat just
- ◆ Global inequality between people from developed and developing countries is unjust.
- ◆ The unequal chances and conditions for people from developed and developing countries are unfair
- ◆ The increasing gap between poor and rich in the world worries me

Social identification (Aron et al., 1992; Schubert & Otten, 2002)



Measures of well-being

Self-esteem (RSES; Rosenberg, 1965)

- ◆ On the whole, I am satisfied with myself
- ◆ At times I think I am no good at all
- ◆ I feel that I have a number of good qualities
- ◆ I am able to do things as well as most other people
- ◆ I feel I do not have much to be proud of
- ◆ I certainly feel useless at times.
- ◆ I feel that I'm a person of worth, at least on an equal plane with others
- ◆ I wish I could have more respect for myself
- ◆ All in all, I am inclined to think that I am a failure
- ◆ I take a positive attitude toward myself

Distress. (DASS-9, Yosoff, 2013)

- ◆ I found it difficult to work up the initiative to do things
- ◆ I felt that I had nothing to look forward to
- ◆ I was unable to become enthusiastic about anything
- ◆ I experienced trembling (e.g., in the hands)
- ◆ I was worried about situations in which I might panic and make a fool of myself
- ◆ I felt I was close to panic
- ◆ I tended to over-react to situations
- ◆ I found myself getting agitated
- ◆ I was intolerant of anything that kept me from getting on with what I was doing

Self-efficacy (Schwarzer & Jerusalem, 1995)

- ◆ I can always manage to solve difficult problems if I try hard enough.
- ◆ If someone opposes me, I can find the means and ways to get what I want.
- ◆ It is easy for me to stick to my aims and accomplish my goals.
- ◆ I am confident that I could deal efficiently with unexpected events.
- ◆ Thanks to my resourcefulness, I know how to handle unforeseen situations.
- ◆ I can solve most problems if I invest the necessary effort.
- ◆ I can remain calm when facing difficulties because I can rely on my coping abilities.
- ◆ When I am confronted with a problem, I can usually find several solutions.
- ◆ If I am in trouble, I can usually think of a solution.
- ◆ I can usually handle whatever comes my way.

Stigma (ISIM, Ritsher et al., 2003)

- ◆ Because I'm a migrant, I need others to make most decisions for me.
- ◆ I stay away from social situations in order to protect my family or friends from embarrassment.
- ◆ People who are not migrants could not possibly understand me.
- ◆ People ignore me or take me less seriously just because I'm a migrant.
- ◆ Living as a migrant has made me a tough survivor.
- ◆ I feel comfortable being seen in public with an obviously migrant person.
- ◆ People often patronize me, or treat me like a child, just because I'm a migrant.
- ◆ I am disappointed in myself for being a migrant.
- ◆ People can tell that I am a migrant by the way I look.
- ◆ I avoid getting close to people who don't are migrants to avoid rejection
- ◆ I am embarrassed or ashamed that I'm a migrant.
- ◆ Migrant people shouldn't get married.

Study 3

General System Justification (Kay and Jost, 2003)

- ◆ La maggior parte delle politiche del nostro Paese sono dirette a ottenere il miglior risultato possibile
- ◆ In generale, il sistema politico italiano opera come dovrebbe
- ◆ L'Italia è il miglior paese del mondo in cui vivere
- ◆ La società italiana dovrebbe essere radicalmente ristrutturata
- ◆ In generale, ritengo che il nostro Paese sia equo
- ◆ Ognuno, nel nostro Paese, ha le sue opportunità di perseguire ricchezza e felicità
- ◆ Il nostro Paese sta peggiorando di anno in anno
- ◆ Il nostro Paese è strutturato in modo tale che le persone ottengano ciò che meritano

Economic system justification (Caricati, 2008; Jost & Thompson, 2000)

- ◆ Se una persona lavora sodo, quasi sempre otterrà quello che desidera
- ◆ Molte persone che non fanno carriera nella nostra società non dovrebbero incolpare il sistema sociale, ma soltanto se stesse.
- ◆ Le differenze fra le classi sociali riflettono le differenze dell'ordine naturale delle cose.
- ◆ La posizione economica di una persona è il riflesso legittimo delle sue "conquiste".
- ◆ Ci sono molte ragioni per pensare che il sistema economico attuale sia iniquo
- ◆ Non c'è motivo di rendere il reddito delle persone più equo.

Study 4

Meritocracy beliefs

The Protestant work ethic (Levin et al., 1998)

- ◆ If people work hard they almost always get what they want
- ◆ Most people who don't get ahead should not blame the system; they really have only themselves to blame
- ◆ In America, getting ahead doesn't always depend on hard work (R)
- ◆ Even if people work hard, they don't always get ahead (R).

Perceived system permeability (Levin et al., 1998)

- ◆ America is an open society where individuals of any ethnicity can achieve higher status
- ◆ Advancement in American society is possible for individuals of all ethnic groups
- ◆ Individual members of a low-status ethnic group have difficulty achieving higher status (R)
- ◆ Individual members of certain ethnic groups are often unable to advance in American society" (R).

Groups system justification beliefs (O'Brien et al., 2012)

- ◆ Groups in society earn the punishments and rewards they get
- ◆ All groups in society people treat each other with the respect that they deserve.
- ◆ In our society, differences in status between groups are right
- ◆ In our society certain groups are often unable to advance the social position
- ◆ Groups in our society get what they are entitled to have
- ◆ Most differences in status between groups are due to injustices in our society (R)
- ◆ The groups in our society get what they deserve
- ◆ In our society all groups can reach the most prestigious social positions

Ingroup identification

It will be measured through four items adapted by Schmitt et al. (2002) and will refer to the membership of your ingroup.

Control condition:

- ◆ Right now, I value being a member of this experiment
- ◆ Right now, I am proud to be a member of the experiment
- ◆ Right now, I believe that being a member of the experiment is a positive experience

- ◆ Right now, I like being a member of the experiment

Experimental condition:

- ◆ Right now, I value being a member of the Methodic group
- ◆ Right now, I am proud to be a member of the Methodic group
- ◆ Right now, I believe that being a member of the Methodic group is a positive experience
- ◆ Right now, I like being a member of the Methodic group

Perception of the legitimacy of differences between groups (only for experimental conditions)

Two items were ad hoc created to be administered to participants only for the two experimental conditions.

- ◆ “It would be right if companies would use personality profiles such as those detected by IBD-PPP to screen employment applicants”
- ◆ “It would be right if companies would use personality profiles such as those detected by IBD-PPP to select employees to whom give bonus”

Study 5

Group identification (Owuamalam et al., 2023)

- ◆ In questo momento, apprezzo il fatto di essere uno studente di economia dell'Università di Parma
- ◆ In questo momento, essere uno studente di economia dell'Università di Parma è importante per la percezione di chi sono
- ◆ In questo momento, sono orgoglioso di essere iscritto al dipartimento di economia dell'Università di Parma
- ◆ In questo momento, essere uno studente di economia dell'Università di Parma è un'esperienza positiva
- ◆ In questo momento, per me è importante essere uno studente di economia dell'Università di Parma
- ◆ In questo momento, sono contento di essere uno studente di economia dell'Università di Parma
- ◆ In questo momento, mi identifico con il dipartimento di economia dell'Università di Parma

Economic system justification (Caricati, 2008; Jost & Thompson, 2000)

- ◆ Tutti i gruppi nella società si guadagnano la posizione economica che hanno.
- ◆ Tutti i gruppi nella società sono trattati con il rispetto che si meritano
- ◆ Nella nostra società, le differenze economiche tra i vari gruppi sono giuste.
- ◆ La nostra società non permette ai membri di alcuni gruppi di migliorare la loro posizione economica e sociale (R)
- ◆ I gruppi della nostra società hanno esattamente quello che sono in diritto di avere
- ◆ La maggior parte delle differenze economiche tra i gruppi è dovuta a ingiustizie della nostra società (R)
- ◆ I gruppi della nostra società ottengono quello che si meritano
- ◆ Nella nostra società tutti i gruppi possono raggiungere le posizioni economiche più alte.

University system justification (Kay and Jost, 2003)

- ◆ In generale, trovo che il sistema universitario italiano sia giusto ed equo
- ◆ In generale, il sistema universitario italiano funziona come dovrebbe
- ◆ Quello italiano è il più bel sistema universitario
- ◆ Buona parte delle politiche del sistema universitario italiano è finalizzata al bene collettivo
- ◆ Ognuno, nel sistema universitario italiano, può dirsi soddisfatto e felice quanto basta

- ◆ Il sistema universitario italiano sta peggiorando ogni giorno di più
- ◆ Nel sistema universitario italiano, normalmente, le persone ottengono quello che meritano
- ◆ Nel sistema universitario italiano esistono ancora molte iniquità

Study 6

Gender identification (Schmitt & Branscombe, 2002)

- ◆ Sono felice di appartenere al mio genere
- ◆ Apprezzo il fatto di appartenere al mio genere
- ◆ È importante per me appartenere al mio genere
- ◆ Sono orgoglioso di appartenere al mio genere
- ◆ Il mio genere è una parte importante di me stesso/a

Temporal comparison (de la Sablonnière et al., 2009).

- ◆ “Rispetto a quella di 20 anni fa, come valuta l’equità tra uomini e donne OGGI?”

Hope for future ingroup advancement (Owuamalam et al., 2021) Ho speranza che uomini e donne verranno trattati equamente nel giro di pochi anni

- ◆ La discriminazione tra uomini e donne non sparirà mai
- ◆ Ho fiducia che nel giro di pochi anni si arriverà alla parità fra uomini e donne

Gender system justification (Jost & Kay, 2005)

- ◆ In generale, le relazioni tra uomini e donne sono eque
- ◆ La divisione del lavoro nelle famiglie si svolge generalmente come dovrebbe
- ◆ I ruoli di genere devono essere radicalmente ridefiniti
- ◆ Per le donne, l’Italia è il miglior paese al mondo in cui vivere
- ◆ La maggior parte delle politiche relative al genere e alla divisione del lavoro tra uomini e donne servono per un bene superiore
- ◆ Uomini e donne hanno la stessa opportunità di raggiungere ricchezza e felicità
- ◆ Nella nostra società il sessismo sta aumentando di anno in anno
- ◆ La nostra società è strutturata in modo che uomini e le donne di solito ottengano ciò che meritano

Study 7

Gender system justification (Jost & Kay, 2005)

- ◆ In generale, le relazioni tra uomini e donne sono eque
- ◆ La divisione del lavoro nelle famiglie opera generalmente come dovrebbe
- ◆ I ruoli di genere devono essere radicalmente ristrutturati
- ◆ Per le donne, l'Italia è il miglior paese al mondo in cui vivere
- ◆ La maggior parte delle politiche relative al genere e alla divisione sessuale del lavoro servono ad un bene maggiore
- ◆ Ognuno (maschio o femmina) ha una buona probabilità di ricchezza e felicità
- ◆ Il sessismo nella società peggiora ogni anno
- ◆ La società è costruita in modo che gli uomini e le donne di solito ottengono ciò che meritano

Economic system justification (Owuamalam et al., 2021)

- ◆ Tutti i gruppi nella società si guadagnano la posizione economica che hanno.
- ◆ Tutti i gruppi nella società sono trattati con il rispetto che si meritano
- ◆ Nella nostra società, le differenze economiche tra i vari gruppi sono giuste.
- ◆ La nostra società non permette ai membri di alcuni gruppi di migliorare la loro posizione economica e sociale (R)
- ◆ I gruppi della nostra società hanno esattamente quello che sono in diritto di avere
- ◆ La maggior parte delle differenze economiche tra i gruppi è dovuta a ingiustizie della nostra società (R)
- ◆ I gruppi della nostra società ottengono quello che si meritano.
- ◆ Nella nostra società tutti i gruppi possono raggiungere le posizioni economiche più alte.

Relevance of temporal comparison (Chun et al., 2018)

- ◆ In ambito economico, ritengo sia utile **enfaticizzare** il confronto fra le differenze di genere passate e quelle di oggi
- ◆ In ambito economico, ritengo sia utile **confrontare** le differenze di genere del passato con quelle di oggi
- ◆ In ambito economico, ritengo sia utile **considerare** maggiormente le differenze di genere del passato rispetto al presente

Hope for future ingroup advancement (Owuamalam et al., 2021)

- ◆ Sono fiducioso/a che le donne raggiungeranno l'equità salariale con gli uomini nei prossimi anni

- ◆ **Non** sono molto fiducioso/a che la discriminazione salariale tra uomini e donne possa scomparire nei prossimi anni (R)
- ◆ Sulla base di ciò che ho letto e delle ultime statistiche sembra realistico pensare che il divario retributivo di genere si ridurrà in futuro
- ◆ Sulla base di ciò che ho letto e delle ultime statistiche, è certamente possibile che un giorno le donne guadagneranno lo stesso salario degli uomini per lo stesso lavoro.
- ◆ Sulla base delle ultime tendenze statistiche, è irrealistico pensare che si raggiungerà l'equità salariale per le donne in futuro (R)