

Young Minds and Political Competencies in the Context of Welfare Support

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I. Conceptual Framework Paper

I.1 Introduction

Following the *Freedom House Report 2024* global freedom is declining for the 18th consecutive year, marked by a deterioration of political rights and civil liberties in many places worldwide (Gorokhovskaia & Grothe, 2024). Notably, these alarming trends extend beyond emerging democracies, with long-standing democracies facing internal threats to their democratic foundations (Levitsky & Ziblatt, 2018; Mounk, 2018). As political polarization intensifies, trust in institutions declines, and misinformation spreads, the fragility of democratic systems has become more apparent. This highlights the critical role of citizens' political competencies in sustaining democracy as a crucial component alongside well-designed institutions (see Galston, 1991, 2001). Within this context, the development of political competencies among young people is particularly important. The *impressionable years* from childhood to late adolescence are crucial for the foundations of the *making of citizens* (Neundorf & Smets, 2017). The stakes are high, as the well-being of democracy hinges on *each generation doing its part* (Lewis, 2020).

Accordingly, it is important to ask how it is possible to foster political competencies effectively, especially among young people. While previous research has emphasized increasing political knowledge to enhance civic performance (Delli Carpini & Keeter, 1996), a more nuanced approach is needed. This is because although 'competence requires knowledge' (Lupia, 2016, p. 25), the two are not synonymous, and the merit of knowing specific political information for being more competent is often not self-evident (Lupia, 2006). Thus, it requires good justification for why specific information is *relevant* to political competencies, which must consider how people process political information (see Lodge & Taber, 2013) and use heuristics to deal with political tasks (see Lupia, 1994; Popkin, 1991; Sniderman et al., 1991).

Identifying such *relevant* political information is difficult (Kuklinski et al., 1998). First, the sheer volume of political information is overwhelming. Moreover, what complicates the matter is disagreement about how political competence should be conceptualized, with varying broad conceptions aiming at different visions of a *good citizen* (Westheimer & Kahne, 2004b, 2004a). While these broad conceptions are valuable for setting overarching goals of political education and advancing democratic theory, they complicate the definition of an empirically measurable, transparent, and defensible competence criterion, which is imperative for evidence-based fostering of competencies (Kuklinski & Quirk, 2001).

To address these challenges, it is advisable to follow a performance- and task-based conception of competence, i.e., understanding political competence as being competent at politically relevant tasks (Brinkmann, 2018; Lupia, 2016). Although such an approach does not capture all nuances of competence (e.g., social and motivational aspects, Weinert, 2001), it enables the definition of transparent and measurable competence criteria. Fostering political

competence² is then best achieved incrementally, task-by-task, based on theoretical and empirical insights on why (specific) knowledge matters for task performance (Lupia, 2016).

However, while providing a useful theoretical starting point, many important gaps remain in the competence framework. First, previous theoretical contributions focus predominantly on how knowledge could enhance competencies, which does not account for the fact that task performance is most likely hampered not when people are uninformed but when they are misinformed, that is, firmly holding false beliefs (Kuklinski et al., 2000). As (young) people are frequently exposed to false information (Newman et al., 2022), which poses a serious threat to democracy (Ecker et al., 2024), it is pressing to consider the potentially detrimental effects of misinformation on competence. Another issue is that previous frameworks were not specifically tailored to competence development in young people, which comes with additional challenges and circumstances that need to be accounted for (e.g., political socialization processes). Lastly, the biggest gap is the lack of applications of the task-based approach. For many important political tasks, evidence-based insights are missing on what information is *relevant* and what misinformation is *harmful* to competence development, which is especially true for young people in their *impressionable years*.

This dissertation contributes to filling these gaps by laying the conceptual groundwork for fostering young people's competencies in the politically relevant task of deciding on welfare support³, that is, expressing welfare attitudes. Welfare attitudes are attitudes to government institutions and policies focusing on social security, equality, and how these policies and institutions are financed (Goerres, 2014). Considering that the welfare state can be seen as a mix of different social policy schemes and resources targeted at specific groups like the unemployed, the sick, or the elderly (Laenen 2020, 48), most of these attitudes focus on the questions of *who should get what, and why* (van Oorschot, 2000).

Specifically, the dissertation focuses on three key questions: What information is *relevant* and what misinformation is *harmful* to young people's competencies in (unemployment-related) welfare support decisions? How is it possible to identify *relevant* information and *harmful* misinformation? How can these insights be practically implemented?

The questions are answered by expanding previous task-based competence frameworks and applying the novel framework in three interrelated papers consisting of a theoretical argument (Paper 1) and two empirical case studies with adolescents in the German-speaking part of

² In the remaining sections, when referring to competence, the focus is on the task- and performance-based approach rather than encompassing notions of competence (e.g., Detjen et al., 2012; Weinert, 2001). See also I.3.2.

³ Deciding on welfare support is a politically relevant task for young people and the general public. This latter becomes evident when considering the policy responsiveness of social policies to public opinion (Brooks & Manza, 2006, 2007; Burstein, 2003), the financial and societal magnitude of social policies, and the importance of the *impressionable years* in shaping welfare attitude change and stability across the life-span (Neundorf & Soroka, 2018). See also section I.4.1.

Switzerland (Papers 2, 3). Overall, the dissertation lays the conceptual foundation for fostering competencies in welfare support decisions among young people in Switzerland and beyond.

First, the existing framework is expanded by shifting the focus from the lack of knowledge to how misinformation might harm competencies, which also requires dealing with epistemological challenges of establishing *truth* in the political sphere (see Geiger, 2018). Moreover, the framework is adapted to young people, acknowledging that cognitive processes (e.g., the use of heuristics) may differ from those of adults, and connecting competence development to their socialization environment. Amongst others, it is emphasized that formal education could and should play a crucial role in fostering competence (see Section 3.4, Paper 1, 3). Next, the novel framework is applied in three interrelated papers:

Paper 1 – ‘Mind the Gap: Young People and Welfare State-Related Knowledge in Deservingness and Welfare Attitude Research’ – provides a theoretical justification for the importance of knowledge and misinformation in shaping welfare attitudes. Welfare deservingness opinions, i.e., the extent to which target groups are seen as worthy of receiving social welfare (Laenen, 2020; van Oorschot & Roosma, 2017), are proposed as the link connecting knowledge and welfare attitudes (*knowledge-deservingness-attitudes nexus*).⁴ The paper argues that deservingness opinions are a central heuristic to decide on welfare support (Petersen, 2015; Petersen et al., 2011; van Oorschot, 2000, 2006), which is largely influenced by what people know and what people are misinformed about. The paper proposes a research agenda on how to pursue the *knowledge-deservingness-attitudes nexus*, highlighting the advantage of focusing on young people in their *impressionable years*⁵ and pointing out the great potential of schools in addressing and preventing influential misinformation affecting deservingness opinions and welfare attitudes.

Paper 2 – ‘Deservingness and Welfare Attitudes Through Young Eyes: The Future of the Swiss Welfare State’ – follows the proposed research agenda from Paper 1. It is an empirical case study of adolescents in the German-speaking part of Switzerland at the end of mandatory schooling. By relying on original survey data and survey experiments, it investigates whether young people also rely on deservingness opinions to inform their unemployment-related welfare support decisions. Moreover, it examines differences between youth and adults regarding deservingness and welfare attitudes. The paper demonstrates that young people express meaningful welfare attitudes and that deservingness evaluations are a strong predictor of welfare support decisions among young people. While there are similarities between young people and adults, there are also stark differences, potentially indicating generational shifts.

⁴ Deservingness opinions or evaluations combine *deservingness perceptions* (assessments of target groups on the CARIN criteria) and *deservingness valuations* (weighting assigned to each criterion). For more details, see I.4.3, Papers 1 and 2.

⁵ Earlier contributions suggested that the *impressionable years* span late adolescence and early adulthood (Jennings & Niemi, 1981). However, nowadays, the consensus is that this period starts early in childhood (Neundorff & Smets, 2017).

Paper 3 – ‘Misinformed Deservingness? Assessing Youth Competence in Welfare Support Decisions’ – builds on Papers I and II. It defines a competence criterion for welfare support decisions. The criterion posits that welfare support decisions are competent if the underlying deservingness opinions are not based on misinformation. By relying on the original survey data set of Swiss adolescents, it identifies unemployment-related beliefs and misinformation associated with deservingness. The paper also explores potential sources of influential misinformation and offers educational policy recommendations.

In what follows, Section 1.2 of this conceptual framework paper provides a theoretical motivation for the importance of fostering political competencies in times of democratic decline, especially among young people. Section 1.3 follows up on this and presents a theoretical framework for pursuing this goal, expanding the task-based approach as outlined above. Section 1.4 presents the application of the adapted framework to young people’s welfare support decisions. Besides clarifying why deciding on welfare support is a relevant task for young people and the general public, the section presents extended summaries of the three dissertation papers. Moreover, it situates their insights within the overall framework. Section 1.5 discusses the lessons learned, addresses the limitations of the articles, and outlines future research avenues. This is followed by the original text of the three papers written for this dissertation.

1.2 The Importance of (Young) People’s Political Competencies for Modern Democracy

‘Democracy is not a state. It is an act, and each generation must do its part’

- John Lewis

The late civil rights leader John Lewis provides an important insight into democracy in the essay he wrote shortly before his passing (Lewis, 2020). According to Lewis, democracy is a dynamic and active process that requires continuous engagement and effort, not a static achievement to be taken for granted. Moreover, he stresses the intergenerational responsibility of each generation to actively contribute to preserving democracy. Building on Lewis’s perspective, this section outlines the critical role of political competencies, particularly among young people, in maintaining and strengthening democracies today.

1.2.1 Democracy Is Not a State: The Fragility of Democracy in Light of Current Challenges

Lewis’s statement that *‘democracy is not a state’* is a stark reminder that democratic systems are not guaranteed. This view contrasts with interpretations after the end of the Cold War in the early 1990s, when a strong optimism prevailed regarding the stability and continuity of

liberal democracies. Some scholars even proclaimed the *'End of History'* (Fukuyama, 1992), suggesting that liberal democracy is the final form of human government and that most governments would likely follow this path.

However, recent developments have challenged this optimistic view. Empirical evidence indicates a decline in democratic practices, leading some scholars to speak of democracy *in crisis* (Abramowitz, 2019). Political rights and civil liberties continue to decrease in many regions around the world (Gorokhovskaia & Grothe, 2024), suggesting a potential *democratic recession* (Diamond, 2015). Notably, while some (newer) democracies have long been considered somewhat fragile, concerns nowadays also extend to the 'world's oldest and most successful democracies' (Levitsky & Ziblatt, 2018, p. 2). In these democracies, the threat is not seen in the form of violent coups, but rather by a gradual erosion of democratic institutions, practices, and norms (also Mounk, 2018).

Several factors contribute to this democratic decline, including economic stagnation, rising inequality, increasing political polarization, declining trust in political institutions and processes, a widening gap between elites and the public, and the rise of populism (for a more detailed account: Levitsky & Ziblatt, 2018; Mounk, 2018). A key aspect connected to many of these factors is the increasing spread of misinformation. Misinformation poses a significant threat to democracy by undermining the shared knowledge base among citizens that (epistemic) democracy relies on (Brown, 2018; Lewandowsky et al., 2023). The consequences for democracy are severe as this threatens the legitimacy of core democratic processes like voting, exacerbates polarisation, and endangers democratic deliberation and evidence-based policy-making (Ecker et al., 2024; Lewandowsky et al., 2023).

1.2.2 Democracy Is an Act: The Role of Political Competencies

Recognizing the fragility of democracy highlights the need for active engagement to preserve it, captured in Lewis's statement that *'democracy is an act'*. The idea that citizen engagement is crucial to a functioning democracy is not new. Scholars of political science and political education have long argued that democracy requires well-designed institutions *and* citizens with 'the appropriate knowledge, skills, and traits of character' (Galston, 2001, p. 217; also Galston, 1991). The well-being of democracy is inherently linked to the political competencies of its citizens (see also Dahl, 1992; Galston, 1991, 2001).

What is new, however, is that given today's challenges for democratic stability, the urgency of fostering political competencies must be taken more seriously. Earlier arguments downplaying the importance of widespread political competence because (longstanding) democracies appear stable and unthreatened (e.g., Weissberg, 2001) no longer hold. Nowadays, even established democracies face internal threats to their democratic systems as evidenced by the

events of January 6th, 2021, when protestors stormed the U.S. Capitol after Donald Trump accused the democratic party of election fraud (see Blake, 2021).

Accordingly, ignoring the proposed link between people's political competencies and the well-being of democracy seems no longer an option. The costs of democratic decline are too high. Liberal democracy is the only form of government that allows for a peaceful competition of different interests and ideas and the right to express different political views freely (Wallace et al., 2021). Not to speak of the essential freedoms and rights that people would lose, including the right to assembly, freedom of speech, protection of minorities, and the power to change and legitimize representatives, policies, and institutions via voting and expressing attitudes. Additionally, from an economic perspective, there are compelling reasons to preserve democracies, as *democracy does cause growth* (Acemoglu et al., 2019) and considerably reduces risks of macroeconomic instability and crises (Knutson, 2019, 2021).

I.2.3 Each Generation Must Do Its Part: The Relevance of Young People's Political Competencies

The final part of Lewis's quote – '*each generation must do its part*' – emphasizes the ongoing, intergenerational responsibility for sustaining democracy. This highlights the need to focus on fostering political competencies among young people. After all, *good citizens* 'are made, not born' (Galston, 2001, p. 217) and the *making of citizens* (Neundorf & Smets, 2017) is considerably shaped by experiences and socialization agents in the *impressionable years*.

Again, the argument is not new; Easton and Dennis (1969) already emphasized in the 1960s that the origins of political and institutional legitimacy lay early in childhood, long before people are allowed to vote. However, when considering political representation as a benchmark for the attention paid to a group, young people's voices are often disregarded in politics and policy-making processes (see Stockemer & Sundström, 2022, 2023). One reason for this is persistent prejudices about their ability to engage with complex political issues (see Camino & Zeldin, 2002). These prejudices often surface in debates about lowering the voting age (e.g., Deutschlandfunk, 2024; SRF, 2024). Missing representation and marginalization of opinions not only contribute to a disregard for young people's interests but can also lead to a vicious cycle of youth political alienation (Stockemer & Sundström, 2023). The latter seriously undermines efforts to foster political competencies. Hence, if the goal is that '*each generation must do its part*', the first step is to take young people more seriously in the political sphere.

Political socialization scholars have made compelling arguments that taking young people more seriously is justified as the political life of people starts way earlier than originally assumed. Research indicates that even primary school children exhibit important prerequisites for democratic citizenship. They express political opinions and attitudes and display patterns of coherent political knowledge and orientations (van Deth et al., 2011). Moreover, the phase

from childhood to late adolescence is marked by heightened awareness and sensitivity to political events (e.g., Bartels & Jackman, 2014; Ghitza et al., 2022), making it a critical period for political socialization. The latter does not mean people cannot change later in life, as political learning is a lifelong process, and life-cycle events can lead to attitude change. However, foundational aspects of our political identities are influenced by experiences and agents in the *impressionable years* (Neundorf & Smets, 2017; Neundorf & Soroka, 2018; Sears & Brown, 2023). Despite these findings, research on ‘the more youthful phases of life’ (Sears & Brown, 2023, p. 96) remains underexplored, particularly in relation to pressing challenges and democratic threats.

While political education scholars acknowledge the importance of fostering political competencies in young people (e.g., Sander, 2014), the educational reality is sobering. Political or civic education often has a marginal position in schools across many countries. Evidence for such a claim comes from professionals studying or working in educational systems calling for higher importance of political education in school curricula, an earlier start of political education, an increase of weekly hours devoted to political education, and more generally a strengthening of the institutional basis of the subject (see e.g., Gökbudak et al., 2022; LCH, 2024; The Liaison Committee, 2022). Moreover, related to this and compounding this issue is the lack of evidence-based research providing effective strategies on how to foster political competencies (see Lupia 2016).

In summary, John Lewis's statement carries profound implications for understanding the role of political competence in sustaining democracy. It highlights the need to invest in political competencies, particularly among young people, as a critical component in maintaining and strengthening democratic systems. This raises the pressing question: how is it possible to effectively foster political competencies among young people? The following chapter addresses this question in detail.

I.3 The Logic of Fostering Political Competencies

‘Ignorance is an evil weed, which dictators may cultivate among their dupes, but which no democracy can afford among its citizens.’

- *William Beveridge*

William Beveridge’s quote reframes the earlier insight that democracies require politically competent citizens into a problem of ignorance. While ignorance might be tolerated or even encouraged in authoritarian regimes, democracies rely on knowledgeable citizens. This raises the question: Is being politically knowledgeable equivalent to being politically competent?

Conversely, does a lack of knowledge about specific political facts necessarily indicate political *incompetence*?

I.3.1 Political Knowledge and Political Competence – Two Sides of the Same Coin?

Previous research on political competence provides valuable insights into these questions. Much of the literature focuses on what people know – or do not know – about politics, policies, and institutions, and what this implies for their competencies and the health of democracy (perhaps most prominently: Delli Carpini & Keeter, 1996). Conclusions often resonate with Beveridge’s quote, suggesting that ‘the more informed people are, the better able they are to perform as citizens’ (Delli Carpini & Keeter, 1996, p. 219) and hence that political information is the ‘currency of citizenship’ (Delli Carpini & Keeter, 1996, p. 8; see also Kuklinski et al., 2000). However, surveys consistently reveal that the general public seems to know very little when being asked to recall *basic* political facts (amongst many others: Bartels, 1996; Bennett, 1988; Delli Carpini & Keeter, 1996; Geiger, 2018; Jacobs & Shapiro, 1999; Neuman, 1986; Somin, 2013). This raises concerns about the implications of such seeming ignorance for political competencies and democracy. Scholars have approached this issue from various angles, resulting in differing conclusions about its severity and democratic consequences.

Ignorance as a Serious Threat to Democracy

The most concerned view comes from scholars arguing that the lack of political knowledge poses serious risks to the functioning of democracy (e.g., Brennan, 2016; Caplan, 2007; Somin, 2004, 2013). If people cannot recall even the most *basic* political facts, they may be unable to competently and meaningfully engage in the democratic process (e.g., Somin, 2004). Solutions proposed range from reducing the complexity of the political sphere by reducing the scale and scope of the government (Somin, 2013) to more radical suggestions, such as limiting the voting rights of the less informed (Brennan, 2016; Illing, 2018).

Individual-Level Ignorance and Collective Rationality

Other scholars contend that while individual ignorance is concerning, its negative effects may be mitigated at the collective level. The *miracle of aggregation* suggests that in aggregation, random errors (here: uninformed preferences and decisions) cancel each other out through the law of large numbers, ultimately resulting in a rational collective outcome or signal (Erikson et al., 2002; Page & Shapiro, 1992; but see: Shapiro, 1998). However, this conclusion depends on the assumption that uninformed decisions or ‘errors’ are indeed random, which has been challenged by evidence showing systematic biases among the public in the political sphere (e.g., Kuklinski & Quirk, 2000).

Measurement of Political Knowledge

Another perspective focuses on how political knowledge is measured (see Barabas et al., 2014; Boudreau & Lupia, 2011). Traditional approaches often assess people's ability to recall political facts, thus aiming at declarative knowledge of certain political information. Yet political knowledge is broader than mere recall of facts. It also encompasses forms of non-declarative knowledge, including procedural knowledge (skills and procedures) and implicit or tacit knowledge (see also Lupia 2016). The argument then is that the problem of ignorance is not as severe as suggested by survey studies asking for knowledge of political facts. Evidence for such claims comes from experimental studies showing that alternative measures (e.g., visual forms) and contexts (in-/exclusion of the don't know option; giving incentives and time to answer) often reveal higher levels of knowledge than standard survey studies suggest (e.g., Miller & Orr, 2008; Mondak & Davis, 2001; Prior, 2014; Prior & Lupia, 2008).

Political Heuristics as a Path to Political Competence

The most optimistic account of competence comes from proponents of the political heuristic literature (e.g., Lupia, 1994; Mondak, 1993; Popkin, 1991; Sniderman et al., 1991). According to this view, citizens with limited knowledge can make competent decisions by relying on cognitive heuristics, such as following party cues (e.g., Lupia & McCubbins, 1998). In these cases, the main difference between more and less sophisticated individuals is not necessarily the outcome of their decisions but rather the decision-making process (Sniderman et al., 1991).

However, this optimistic perspective does not fully account for how the available information and knowledge influence the heuristics people use and how they use them (e.g., Kahneman, 2012; Popkin & Dimock, 1999). As Lupia and Johnston (2001, 196) warn, 'shortcuts are no panacea. If used incorrectly, reliance on shortcuts can lead to grave errors'. One example is when people, due to a lack of information, evaluate candidates by their physical appearance instead of their programs (e.g., Ballew & Todorov, 2007). This can result in individuals voting for a candidate they might not have supported if they had more information and thus cannot be considered a competent choice. The same issue arises in policy support. When people fail to recognize who benefits or is harmed by a specific policy, they cannot apply group-specific perceptions as a heuristic for policy evaluations. This leaves more room for framing by the media or political elites (Piston, 2018). Thus, while heuristics are valuable cognitive strategies to simplify decision-making, it does not make sense to argue that they can compensate for a lack of information or knowledge (see Kuklinski & Quirk, 2000). Instead, knowledge and heuristics require joint consideration as they are inherently linked (Popkin & Dimock, 1999).

Competence Through Knowledge

Overall, the results suggest that while political knowledge is vital to political competence, it is not synonymous with it. Instead, political competence must be defined in a way that extends

political knowledge and also considers political heuristics. At the same time, scholars must be aware of the role political knowledge plays in what heuristics people ‘use and how well they assemble the data into a choice’ (Popkin & Dimock, 1999, p. 121). Given that it is unrealistic and too demanding to expect citizens to be fully informed (see Moe, 2020), the critical questions become: What information is *relevant* for enhancing political competence, and how can relevant information be identified? However, before these questions can be answered, it is necessary first to address the challenge of defining political competence in a manner that allows for the effective and transparent identification of information that can be deemed *relevant* and worth knowing.

I.3.2 Difficulties in Defining Political Competence – A Task-Based Approach

Defining political competence is an ongoing challenge for political science and political education scholars. One of the primary difficulties stems from the broad range of democratic citizenship conceptions, each associated with different expectations regarding the required level of citizen engagement and participation (March & Olsen, 2000). As a result, there is a variety of ‘ideas about what good citizenship *is* and what good citizens *do*’ (Westheimer & Kahne, 2004a, p. 241), complicating and politicizing the question of what political competence entails and what political education should focus on (also Westheimer & Kahne, 2004b). This diversity is also reflected in the various terminologies used in the scholarly literature, which stem from different emphases and goals within these conceptions. Amongst many others, these include *political competence* (Detjen et al., 2012), *civic competence* (Dahl, 1992), *civic literacy* (Cassel & Lo, 1997), and *democratic and intercultural competence* (Council of Europe, 2016).

While these normative discussions about what constitutes a *good citizen* and the components of a comprehensive, multidimensional conception of competence are valuable for advancing democratic theories and setting goals for political education, they complicate evidence-based research on political competence. This is because it will likely not be possible to define a broad conception of political competence that most scholars and educators would agree on (Brinkmann, 2018). More importantly, broad definitions make it difficult to define a defensible competence criterion for assessing competence.

Yet, defining a logically sound, transparent, and defensible competence criterion is essential for fostering political competence (Kuklinski & Quirk, 2001; Lupia, 2016). After all, without a clear evaluation standard, it is impossible to assess whether a strategy to foster political competencies is effective. Therefore, any evaluative approach must begin with the transparent definition of a criterion by which performance can be measured. This criterion must be empirically measurable and indicate how individuals perform relative to a defined standard, i.e., display whether a person is more or less competent (Kuklinski & Quirk, 2001; Lupia, 2016).

Without a transparent approach and a clear rationale for evaluation, any conclusions about competence are ‘essentially arbitrary’ (Kuklinski & Quirk, 2001, p. 289).

A pragmatic solution to this conceptual problem is to define competence in a narrower sense as being ‘competent *at* something’ and hence ‘with respect to a task’ (Lupia, 2016, p. 31). A related definition is to see competence as the ‘ability to skillfully make a decision’ (Brinkmann, 2018, p. 163). By extension, political competence then is being competent at politically relevant tasks. Although debate may persist over which tasks qualify as politically relevant, this approach has the advantage that it is possible to define performance standards for tasks (see also Brinkmann, 2018). People can perform better or worse at tasks and, accordingly, be more or less competent. In contrast, when relying on broader conceptions of political competence going beyond being *good* at political tasks but also including favorable traits (e.g., altruism) of a *good citizen* (e.g., Dahl, 1992), it is difficult to establish measurable criteria for assessment. By defining political competence in relation to performance at specific tasks, scholars and educators can assess competence more transparently, based on observable performance rather than abstract ideals or contested traits of *good citizenship*. Conceiving competence from this performance-based perspective (‘competently performing at a task’) simplifies the complexities of the competence concept (see Weinert, 2001). For example, it does not account for motivational or social aspects; however, reducing competence to task performance enhances the ability to conduct evidence-based research on fostering competencies. Thus, while studies relying on a task-based approach should not be interpreted as capturing all possible facets of competence, they offer a pragmatic compromise between theoretical depth and practical, evidence-based research. Another advantage of the performance- and task-based approach is that it provides a good basis for identifying *relevant* information for fostering political competencies, a topic explored in the next section.

I.3.3 Identifying Relevant Information to Foster Political Task Performance

Using the task-based definition of competence, the question then becomes what information is *relevant* for becoming more competent at politically relevant tasks? Answering this question is challenging due to the vast amount of information available, making it impossible for an individual to be fully informed on all political matters. In the words of Arthur Lupia (Lupia, 2016, p. 3, *italic added*):

‘When it comes to political information, there are two groups of people. One group understands that they are almost completely ignorant of almost every detail of almost every law and policy under which they live. The other group is delusional about how much they know. There is no third group.’

Thus, compelling arguments are required to claim that knowing specific information is relevant to being more competent at a political task, particularly given the high costs of being well-

informed (for the original argument: Downs, 1957). Yet, previous research on competence often failed to present a clear rationale for why people need to know specific information, such as the name of the current chief justice of the Supreme Court, to be more competent at a political task (Lupia, 2006). While such knowledge might benefit individuals in specific professions (e.g., lawyers, journalists, scholars), it is not self-evident why the average citizen should know this fact.

Thus, what constitutes *relevant* information for political competencies also depends on people's political, occupational, and civic roles, as not everybody needs to know the same things (Lupia, 2016; also Moe, 2020). Moreover, information *relevant* to being more competent at one task must not be applicable to another. For example, information beneficial for making a more competent voting decision in a referendum may not align with information useful for launching a petition. This also relates to the fact that people can use different heuristics for different political tasks, which must be accounted for when assessing task performance (see I.3.1).

Furthermore, it is crucial to consider how people process political information when studying and aiming to foster political competencies (see Kim et al., 2010; Lodge & Taber, 2013). A critical distinction that must be highlighted in this context is that information is not knowledge. Information is a 'means of conveying attributes of observations, data, and ideas' and 'need not be factual' (Lupia, 2016, p. 29). Knowledge, on the other hand, is an attribute of memory in various forms (e.g., declarative, procedural, tacit) that is 'justified or true' (Lupia, 2016, p. 27). While information can be conveyed from one person to another, knowledge cannot be transmitted directly.

This is because the way people process political information varies greatly from one individual to another. Information processing and learning are individual reconstructive processes influenced by prior beliefs and experiences and thus shaped by existing conceptual networks and mental structures (Anderson, 2020, for a more detailed account). As a result, when confronted with new information, it is not just a question of whether people pay attention to it but also how they interpret it and integrate it into their existing conceptual networks. A prominent example of the underlying cognitive complexities of political information processing is presented by Lodge and Taber (2013). They argue that political information processing is initially affect-driven. Prior attitudes and previously evaluated concepts (which are also affectively charged) strongly influence how people consider, assess, and incorporate new information into memory. Therefore, how individuals process information has direct implications for studying political competencies and identifying *relevant* information. Consequently, individuals can make different decisions or judgments even when presented with the same information (e.g., Lupia et al., 2007). Importantly, if these decisions reflect legitimate differences in values or ideologies (see also Sen, 1999), labeling individuals as ignorant or incompetent simply because they reach

different conclusions is unsound. In turn, this further illustrates why building encompassing conceptions of political competence around contested moral aspects or desired values is problematic, particularly in light of the need to define a transparent, verifiable, and measurable competence criterion, which is necessary to identify *relevant* information.

I.3.4 Extending the Political Competencies Framework to Misinformation

The previous sections have focused on the importance of *relevant* knowledge for political competencies, particularly when people ‘incorrectly’ use heuristics because they lack *relevant* information when dealing with political tasks. However, the likelihood of ‘grave errors’ (Lupia & Johnston, 2001, p. 196) when relying on heuristics is highest and hence competence lowest not when people lack specific information but when they are misinformed, that is, firmly holding false beliefs (Kuklinski et al., 2000). In the same vein, it is the misinformed rather than the uninformed getting active based on false information, increasing the likelihood of harmful political actions (Hochschild & Einstein, 2015, 2016).

The problem then also expands to the collective level. While uninformed individuals introduce random errors to the democratic process, misinformed individuals generate systematic biases that can distort the public signal (see Kuklinski & Quirk, 2000). Moreover, cognitive aspects related to misinformation further complicate the goal of fostering political competencies. Correcting misinformation is harder than learning new information for motivational and cognitive reasons (Ecker et al., 2014). Moreover, even when corrections are successful, the initial misinformation continues to affect memory and decision-making (Swire-Thompson & Ecker, 2018; Thorson, 2016). Considering that exposure to false information has increased in recent years (Newman et al., 2022) and that misinformation can seriously affect core democratic processes (Ecker et al., 2024; Lewandowsky et al., 2023), it seems adequate to extend the focus from what information is *relevant* to what political misinformation is *harmful* in the political competencies framework. Again, the latter is particularly important for young people, considering the impact of the *impressionable years* on the *making of citizens* (Neundorf & Smets, 2017a; Sears & Brown, 2023). However, incorporating misinformation into discussions of political competencies requires an in-depth discussion of when a claim should be considered false and what qualifies as a political fact in the sense of being information that ‘accurately represents the world’ (Kuklinski et al., 1998, p. 148). The latter is closely related to discussions on what constitutes *truth* in the political sphere (see Geiger, 2018) and will be examined in the following subsections.

Ontological and Epistemological Challenges in Defining Truth in the Political Context

The first challenge in establishing *truth* in the political context is that ‘*facts and values tend not to exist in neatly separated piles*’ (Lupia, 2016, p. 35). For example, while one person might conceive a particular conception of a *good citizen* as correct, this must not be the case for

another, leading to the abovementioned disagreements. Consequently, establishing *truth* in the form of agreement on such broader worldviews or conceptions is unlikely (Brinkmann, 2018). Related to this are difficulties in distinguishing socially constructed concepts and ideas, shaped by cultural norms or historical context (e.g., specific gender roles), from *brute facts*, which exist independently of the social context (e.g., physical laws like the second law of thermodynamics) (Hacking, 2000). However, even when focusing on narrower factual claims, that is, information that can be more directly observed, studied, and tested in social science research, epistemological and ontological problems persist in the political sphere (Geiger, 2018). This is because political information is often politically determined. The selection of specific information, how it is framed, and especially how it is interpreted is rarely value-free, complicating the notion of political facts as 'objective and unproblematic states of the world' (Kuklinski et al., 1998, p. 147). For example, while a verified electoral result (e.g., number of votes) could be considered a brute fact, the interpretation and framing of these results, such as claims of voter manipulation and election fraud, are often socially constructed and influenced by political agendas.

Another epistemological challenge is related to the uncertainty of information that must be accounted for when assessing the *truth* or falsehood of statements (see Geiger, 2018; Kuklinski et al., 1998; Uscinski & Butler, 2013). This uncertainty is obvious in broad conceptions like *good citizenship* but is again also present in more narrow political information. A good example is statistical indicators obtained from established institutions, which can deviate from the *true* value due to measurement errors, differences in definitions, and temporal changes (see Geiger, 2018; Kuklinski et al., 1998). For example, the unemployment rate in Switzerland in 2022 varies strongly depending on the definition used. Whereas the State Secretariat for Economic Affairs (SECO) reports a rate of 2.2% (SECO, 2023), the International Labour Organisation provides a value of 4,1% (BFS, 2024). In both cases, these are reputable and established institutions, making it difficult to determine which definition, method, and value better approximates the *true* unemployment rate. As a result, assessing the correctness of a person's statement about the unemployment rate is not as straightforward as it initially might seem. Overall, the lesson for assessing (political) information is that due to the inherent uncertainty connected to it, the veracity of (political) claims is best understood on a continuum rather than as a binary true-or-false distinction (see Adams et al., 2023; Uscinski and Butler, 2013).

Standards of Assessing True and False Information

However, despite these ontological and epistemological problems, it would be flawed to claim that misinformation should and cannot be addressed due to difficulties in assessing the veracity of political claims (Adams et al., 2023; Freiling et al., 2023; Krause et al., 2022). Such logic ignores that the degree of uncertainty varies considerably across information and that some 'facts are more indisputably correct than others' (Kuklinski et al., 1998, p. 148). While it can be

very problematic to classify a statement as true or false, in many cases it is possible to do so, leading to ‘incontrovertible historical and scientific facts’ (Ecker et al., 2024, p. 30). For example, stating the existence of eligibility criteria for unemployment benefits in a given year carries less uncertainty than stating the true unemployment based on an official statistic. Meanwhile, relying on statistical indicators from the State Secretariat for Economic Affairs (SECO) is more likely accurate than inferring the unemployment rate from anecdotal evidence.

Consequently, accepting that some information is more accurate than others in approximating truth leads to the question of what standards should be used to assess the veracity of political claims. Previous research has approached this issue by defining false information as deviating from the ‘best available evidence and expert opinion’ (Nyhan & Reifler, 2010, p. 305). Such *evidence and expert opinion* on political claims often come from scientific inquiry, particularly when results are supported by consensus, but are also produced through investigative journalism, legal proceedings, and (formal) public and corporate inquiries (Ecker et al., 2024). Using this definition as a yardstick makes it possible to declare political information as more and less suitable in approximating truth, at least when focusing on more narrow and testable information. Returning to the previous example, the unemployment rate published by SECO can be seen as a valid approximation as it is based on transparent methodology and expert analysis. Moreover, SECO is an established and reputable institution in Switzerland, a country ranking almost best in terms of democracy (Economist Intelligence Unit, 2024) and low corruption in the public sector (Transparency International, 2024). At the same time, simply because it is possible to identify certain information as more reliable than others does not mean that researchers are exempt from *truth discussions* when assessing statements as true or false. Instead, researchers are advised to declare their evaluative approach transparently, state and justify their source of information, and define the boundaries of ‘reasonable beliefs’ (Geiger, 2018, p. 1003). Importantly, they should not assume a dichotomy of true and false in cases where information is associated with great uncertainty (Uscinski & Butler, 2013).

Identifying Relevant Information and Harmful Misinformation – An Incremental Approach

Overall, sections I.3 and I.4 demonstrate that there is no straightforward solution to what people should know or *should not be misinformed* about in politics. There is no ‘silver bullet’ in the form of a list of facts that people could learn to be politically competent in all regards (Lupia, 2016). Instead, a pragmatic evidence-based approach is advisable, focusing on one relevant political task at a time, which can account for the heuristics people use for different tasks. Fostering political competencies then requires the identification of a politically relevant task, theoretically justifying why (specific) knowledge should be *relevant* for the task and why specific *misinformation* might be *harmful*. Moreover, this should be done under consideration of political information processes and heuristics and by employing empirical tests to determine the validity of these claims. The latter requires the definition of a transparent competence

criterion (see Kuklinski & Quirk, 2001) that can empirically measure performance relative to a defined standard while accounting for legitimate value differences and ideological diversity. While the insights from this section also apply to fostering political competencies among young people, certain aspects must be considered specifically concerning young people, which will be discussed in the next section.

I.3.5 Fostering Political Competencies Among Young People

The logic of competence can also be applied to young people; however, researchers must consider the unique conditions that differentiate competence development in young people from that of adults. These include differences in cognitive processes (e.g., use of heuristics) and the role of political socialization. While these factors introduce additional complexities, they also present opportunities, particularly regarding the role formal education can play in fostering the development of political competencies.

Cognitive Processes and Heuristics in Youth

Young people may process political information differently from adults and use heuristics in distinct ways. One example is the reliance on the inherence bias, where individuals attribute observed behaviors or events to inherent characteristics. This tendency has been shown to be age-dependent (Hussak & Cimpian, 2018). The same may be true for other heuristics used to navigate political tasks, such as relying on cues from political parties (Lupia & McCubbins, 1998), which could be stronger among adults. Therefore, when arguing that specific information is *relevant* or misinformation *harmful* to competence at a political task because it affects how an individual uses a particular heuristic related to this task, it is essential to first study whether and how young people use it. If previous research has only examined the use of the specific heuristic among adult populations, assuming its relevance for youth could lead to flawed inferences about what information is beneficial and what misinformation is harmful for young people to know to become more competent at a political task.

Political Competencies and the Role of Socialization Agents – A Case for Formal Education

Beyond cognitive processes, a second important point to consider is the context in which young people develop political competencies, which requires attention to the role of political socialization processes during the *impressionable years*. The *making of citizens* in childhood and adolescence is strongly influenced by experiences and interactions with key socialization agents such as families, peer groups, schools, and media (for a review: Neundorf & Smets, 2017). Among these agents, formal education – including schools, civics courses, and teachers – is best suited to promote the development of political competencies among young people. While families and parents are often first and strong transmitters of political orientations (Jennings et al., 2009; Jennings & Niemi, 1981; Rico & Jennings, 2016; Verba et al., 2005; but see: Dinas, 2014), they may not always be ideal for promoting political competencies. Parents are

typically not trained educators, and family discussions may unintentionally present one-sided views or false information that young people might adopt uncritically (Vandamme, 2023). Similar arguments can be made for peers, who also can play an important role in political socialization (Quintelier, 2015; Tedin, 1980). Furthermore, while (social) media theoretically holds great potential to expose wide audiences to *relevant* political information that could promote political competencies also among young people, the latter is questionable in light of recent media consumption trends and concerns about increasing mis- and disinformation, and echo chambers (Barberá et al., 2015; Newman et al., 2022).

Given these limitations, already by process of elimination, formal education emerges as the most appropriate socialization agent to promote political competencies among young people (see also Macedo 2003). However, it goes beyond that. First, one of the primary tasks of schools is to assist young people in learning and developing competencies, including political competencies in political education (e.g., Sander 2014). This goal aligns closely with the logic of competence outlined above, which connects learning relevant information to being more competent at political tasks. In addition, teachers, as trained education specialists, can be expected to be better equipped than parents to design and provide learning environments that facilitate successful learning. Moreover, particularly education during mandatory schooling offers a unique opportunity to reach a wide and diverse audience across different political and socioeconomic backgrounds, which is less possible later in life. While the latter was used historically for indoctrination purposes⁶, which is a valid concern that must be taken seriously, well-designed political education can promote critical thinking and open dialogue instead. This is because most schools provide a more heterogeneous environment than families, allowing students with differing viewpoints to interact and learn together in a structured setting, developing political competencies under the supervision of trained specialists (Vandamme, 2023).

However, despite its great theoretical potential, the effectiveness of education, particularly civic education, in fostering political competencies remains uncertain (Neundorf & Smets, 2017). While educational attainment levels have risen in most countries, public knowledge of basic political facts has remained low (e.g., for the US: Delle Carpini & Keeter, 1991; Delli Carpini & Keeter, 1996). This suggests that increasing educational attainment alone may not suffice, highlighting the need for more tailored and evidence-based strategies to foster political competencies among young people. Although studies show compensating effects of civic education for students lacking parental political socialization (e.g., on political engagement Neundorf et al., 2016), studies that demonstrate the causal impact of civic education interventions on important outcomes remain limited (Campbell, 2019; Geboers et al., 2013). In turn, this further

⁶ More generally, scholars and educators should consider the political implications of educational choices (Westheimer & Kahne, 2004b).

highlights the need to present a transparent approach that displays how competencies for politically relevant tasks can be measured, what information could be *relevant*, and what misinformation is *harmful to* task performance. This dissertation contributes to closing this research gap by laying the conceptual foundation for fostering competence in welfare support decisions.

I.4 Conceptual Foundation for Fostering Competence in Welfare Support Decisions Among Young People – Presentation of the Three Dissertation Papers

Using the theoretical framework outlined in Section I.3, this dissertation lays the conceptual foundation for fostering competencies in welfare support decisions among young people through three interrelated papers. Before providing extended summaries of each paper and explaining how their insights connect to the broader framework presented in Sections I.2 and I.3, the next section will first demonstrate why deciding on welfare support can be considered a politically relevant task.

I.4.1 Welfare Support Decisions as a Politically Relevant Task

There are several reasons why deciding on welfare support is a politically relevant task for the average citizen. This is evident when considering the critical role of public opinion in shaping social policies, the financial and societal magnitude of these policies, and the importance of the *impressionable years* for the stability and change of welfare attitudes across the lifespan.

First, assessing the status quo of policies, actors and central institutions is a key duty of democratic citizens (Galston, 2001), playing an essential role in maintaining the legitimacy and stability of democratic systems and their institutions (Easton & Dennis, 1969). However, it goes beyond this normative basis, as public opinion has been shown to have a significant influence on public policy (see for the concept of *policy responsiveness*: Burstein, 2003; Page & Shapiro, 1983; Soroka & Wlezien, 2009), which was also confirmed for the social policy realm (Brooks & Manza, 2006, 2007).

Welfare attitudes are particularly important in the context of *policy responsiveness*, both from a financial and societal perspective. In 2022, the average OECD country spent more than 20% of its GDP on social protection, excluding education (OECD, 2024). The scale of this expenditure is even more striking when viewed as a proportion of total government spending, with social spending accounting for 45-60% of total government expenditure in most European countries (Häusermann, 2023). As Dean (2019, p. 5) puts it: 'In a world where money matters, Social Policy is a very substantial subject'.

The societal relevance of the welfare state is equally important. Social policies affect social relations within and across generations, making it a relevant topic for the entire population (Dean, 2019). Everyone is eventually confronted with topics like old age, sickness, unemployment, education, or balancing work and family life. The relevance of the welfare state will likely even grow in the future in light of current developments and challenges, including the shift to

a digital knowledge economy paired with automation through artificial intelligence, migration, and the intensifying effects of climate change (Dean, 2019; Häusermann, 2023). Considering that welfare states already face financial constraints (see also Flora, 1986; Pierson, 2001) and that these new developments may introduce new social risks, the question of *who should get what, and why* (van Oorschot, 2000) will likely intensify in the future, underscoring the relevance of deservingness evaluations and welfare attitudes.

Lastly, young people have a particularly important stake in future welfare state developments. For example, current demographic trends such as population aging strongly affect the implicit 'generational contract' embedded in the welfare state (see for the concept: Svallfors, 2008; Svallfors et al., 2012), which is becoming less rewarding for future generations. However, addressing young people's views early on is crucial not only because they are directly affected by policy changes today. Recent research on the origins of redistributive preferences highlights the importance of the *impressionable years* for the stability and change of these attitudes, which 'may depend in part on a serious consideration of the factors that lead us, early in our political lives, to favor one policy or another' (Neundorf & Soroka, 2018, p. 420). Therefore, fostering competencies in welfare support decisions from an early age is essential, especially given the potential of formal education for this endeavor (see I.3.5).

I.4.2 Outline of the Three Dissertation Papers

When aiming to foster competencies in welfare support decisions among young people, the first step, according to the logic of competence (I.3), is to theoretically justify why (specific) knowledge and misinformation should affect decisions on welfare support. Afterward, it is necessary to empirically investigate what information could be *relevant* and what misinformation could be *harmful* by considering the heuristics young people use for welfare support decisions. These tasks, including the definition of an empirically measurable competence criterion, are addressed in the three interrelated papers that form the core of this dissertation. Table 1 provides an overview of the three papers.

The first paper demonstrates why and how knowledge and misinformation affect welfare attitudes and proposes a research agenda in this regard. The central argument is that people rely on deservingness evaluations as a heuristic to decide on welfare support. These deservingness considerations are, in turn, influenced by what people know or, more likely, what they are misinformed about. In the second part of the paper, the argument is made that research on this topic could benefit greatly from focusing on young people and what role formal education could play in tackling and preventing influential dis- and misinformation.

The second and third papers are empirical case studies that build on the theoretical framework developed in the first paper. They analyze data from an original survey study conducted with young people in the German-speaking part of Switzerland at the end of mandatory schooling.

Paper 2 confirms that young people, like adults, rely on deservingness considerations when making welfare support decisions and examines similarities and differences between young people’s and adults’ views on deservingness and welfare attitudes. Following up on this, Paper 3 examines what beliefs are associated with deservingness evaluations, the competence of young people’s welfare support decisions using the amount of influential misinformation as the performance standard, and the potential sources of influential misinformation. The next sections present extended summaries and selected insights from each paper, explaining how they fit into and contribute to the broader competence framework developed in sections I.2 and I.3.

Table I.1 Overview of the Dissertation Papers.

Title	Selected Insights and Contributions	Method	Publication status
Mind the gap: Young people and welfare state-related knowledge in Deservingness and Welfare Attitude Research	<ul style="list-style-type: none"> Establishes the link between knowledge and misinformation and welfare attitudes via deservingness opinions (<i>knowledge–deservingness–attitudes nexus</i>) Proposition of a research agenda on the <i>knowledge–deservingness–attitudes nexus</i>, particularly with young people in the <i>impressonably years</i> Highlights the potential of formal education in tackling and preventing influential dis- and misinformation and the role of schools as research partners 	Literature Review	Published in <i>Journal of European Social Policy</i> , 2024, 34(1), 101-114.
Deservingness and Welfare Attitudes Through Young Eyes: The Future of the Swiss Welfare State	<ul style="list-style-type: none"> Deservingness considerations are a strong predictor of welfare attitudes also for young people While young people’s deservingness opinions are similar to those of adults in some regards, there are also stark differences (absence of a migrant deservingness gap and lower deservingness of the elderly) Young people have valuable deservingness opinions and welfare attitudes, which may indicate <i>generational changes</i> 	Empirical Analysis (Survey study and survey experiment)	Published in <i>Swiss Political Science Review</i> , 2024, 30(3), 280-308.
Misinformed Deservingness? Assessing Youth Competence in Welfare Support Decisions	<ul style="list-style-type: none"> Definition of a competence criterion for welfare support decisions based on deservingness opinions and the amount of influential misinformation Competence in welfare support decisions among young people seems satisfactory; however, influential misinformation remains a problem, particularly for benefit overuse beliefs Sources of influential misinformation reveal a special role of parents and directional motives 	Empirical Analysis (Survey study)	Unpublished manuscript

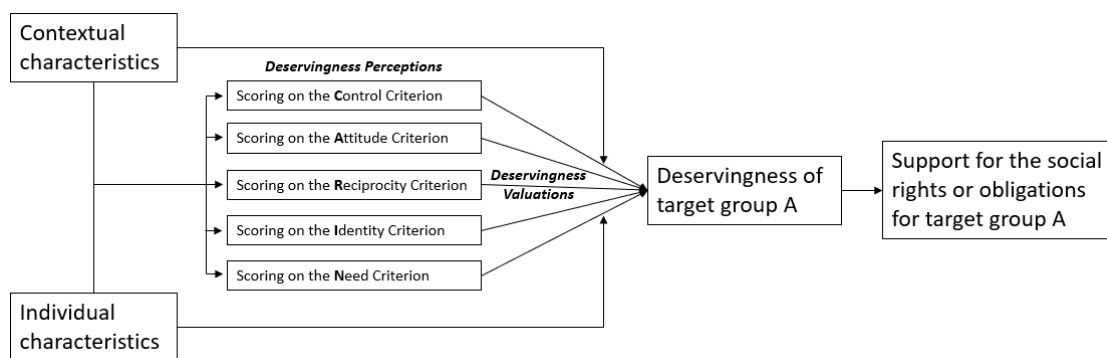
I.4.3 Extended Summary and Selected Insights of Paper 1

Through a comprehensive literature review, the first paper, ‘Mind the gap: Young people and welfare state-related knowledge in Deservingness and Welfare Attitude Research’, advocates for a novel research agenda focusing on welfare-state related knowledge and young people in deservingness and welfare attitude research. The paper introduces a theoretical argument connecting knowledge to welfare attitudes through welfare deservingness, termed the *knowledge-deservingness-attitudes nexus*.

Welfare deservingness refers to the extent to which target groups are seen as worthy of receiving social welfare (Laenen, 2020; van Oorschot & Roosma, 2017) and is considered a powerful heuristic in welfare support decisions (e.g., Petersen, 2015; Petersen et al., 2011; Sniderman et al., 1991). People assess the overall deservingness of target groups by

evaluating them based on the CARIN criteria⁷: *Control, Attitude, Reciprocity, Identity, and Need*. The overall deservingness evaluation strongly predicts the support for social rights and obligations of target groups (Laenen, 2020; van Oorschot & Roosma, 2017). Overall deservingness results from evaluations of target groups regarding the single criteria (*deservingness perceptions*) and the weight they assign to each criterion in the overall deservingness assessment (*deservingness valuations*). Figure 1 shows the relationship between deservingness and welfare attitudes in the *welfare deservingness model*. Individual ideological and sociodemographic characteristics and political, social, and cultural contexts shape people’s deservingness perceptions and *valuations* (Jeene, 2015; Laenen, 2020; van Oorschot & Roosma, 2017).

Figure I.1 *The Welfare Deservingness Model.*



Note. Adapted from Laenen (2020, p. 22), based on: Cook & Barrett (1992), Jeene (2015), van Oorschot & Roosma (2017)

The paper extends previous theoretical accounts by arguing that knowledge and misinformation must also be considered in the framework, as they may play a critical role in shaping people’s *deservingness perceptions* and *valuations* and, consequently, their welfare attitudes (see Figure 1). This aligns with insights from Section I.3, which emphasized the importance of jointly considering knowledge and heuristics (Popkin & Dimock, 1999). Specifically, the paper follows arguments that ‘incorrectly’ used shortcuts (Lupia & Johnston, 2001, p. 196) can lead to serious errors in judgments, and such errors are most likely when people are misinformed (see also I.3.4). The same is argued to be true for the deservingness heuristic. For example, knowing that people must meet eligibility criteria to receive unemployment benefits is expected to lead to higher perceived deservingness, as it implies greater past contributions and thus higher ‘scores’ on the *reciprocity* criterion (see Laenen, 2018). This connection should be non-existent or blurred when one is unaware or unsure of the eligibility criteria for unemployment benefits. In contrast, when incorrectly convinced that everyone receives unemployment benefits regardless of prior work contributions or education, this should lead to lower *reciprocity* scores and, hence, lower deservingness. Similarly, in times of high unemployment, the perceived deservingness of the unemployed is said to be higher as the unemployed could be seen

⁷ An extensive description of the CARIN criteria is presented in papers 2 and 3. To avoid repetition, it is refrained from presenting a detailed description in the conceptual framework paper (for more information, see Laenen, 2020; van Oorschot, 2000, 2006; van Oorschot & Roosma, 2017). For a critique of the CARIN criteria: Knotz et al. (2022).

as less in *control* of their situation (Larsen, 2006). This connection should be blurred when uninformed and reversed when misinformed, i.e., being convinced of very low unemployment rates, although unemployment is high.

By focusing on the *misinformed* rather than the *uninformed*, the paper refers to the extended logic of competence presented in Section I.3. The question then is not only what information is *relevant* for competence but, more importantly, which *misinformation* is harmful to competence. The first part of the paper concludes that a decision based on misinformation cannot be considered competent, regardless of how competence is conceptualized. The latter forms the basis for defining a competence criterion for welfare support decisions, which is further developed in Paper 3 (*Misinformed Deservingness?*).

The second part of the paper proposes a new research agenda, presenting trajectories for studying the *knowledge-deservingness-attitudes nexus*. This includes addressing the challenges of conceptualizing and operationalizing political knowledge, deservingness opinions, and welfare attitudes. For instance, researchers must distinguish between deservingness opinions and welfare attitudes (Laenen, 2020), differentiate the uninformed from the misinformed (Kuklinski et al., 2000), and clearly define assessment standards when answers cannot be unambiguously classified as right or wrong (also Geiger, 2018). Another trajectory involves identifying influential welfare-state related misinformation, that is, misinformation that affects deservingness *perceptions* and *valuations*. The latter is assumed to be most likely identified in beliefs that can be logically connected to the deservingness criteria. Moreover, a research plan is proposed to test various plausible connections through initial cross-sectional studies and follow-up with experimental and longitudinal studies to better approach causality between beliefs and attitudes.

Lastly, the paper also makes a strong case for focusing on young people when investigating the nexus. Besides providing important insights into causality, research focusing on youth is particularly important because identifying influential misinformation early is crucial, given the lasting effects of the *impressionable years* on welfare attitude change and stability over the lifespan (Neundorf & Soroka, 2018). Moreover, tackling welfare-state related misinformation and building resilience against disinformation may be more effective with young people than adults, especially when considering the great potential of schools and educators. Overall, the paper's final part resonates strongly with the call to focus more on young people (I.2.3) and utilize the potential of formal education in addressing welfare-state-related misinformation to enhance competencies among youth (I.3.5).

I.4.4 Extended Summary and Selected Insights of Paper 2

The second paper, 'Deservingness and Welfare Attitudes Through Young Eyes: The Future of the Swiss Welfare State', builds on the first by presenting a baseline study that examines

whether young people, like adults, rely on deservingness evaluations when making welfare support decisions. This follows discussions in 1.3.5 that the relevance of a heuristic for a political task must be confirmed for young people, especially when previously investigated only with adults. Additionally, the study aims to determine the extent to which young people's deservingness opinions and welfare attitudes differ from those of adults. Theoretical arguments are developed on whether differences may change as participants grow older or whether they represent generational or cohort effects.

Methodologically, the paper analyzes data from an original survey on the deservingness opinions and welfare attitudes of adolescents from 14 cantons in the German-speaking part of Switzerland in 8th and 9th grade (N = 1601, weighted mean age = 14.6). To enhance the generalizability of results, students from all geographical regions and from all school types were included in the sample.⁸ The 8th and 9th school years mark the end of mandatory schooling in Switzerland, making the sample highly relevant from a policy recommendation perspective.

In addition to more general questions on deservingness and the role of the government, the study mainly focuses on deservingness opinions and welfare attitudes towards different groups of unemployed. For this, a survey experiment was conducted that varied the description of unemployed people living in Switzerland, including unemployed individuals in general (baseline), younger unemployed (under 30), older unemployed (over 55), unemployed with a Swiss passport, and unemployed with a passport from an EU country. The experimental design allows for a re-examination of established findings from adult-centered deservingness studies, such as that older unemployed people are seen as more deserving than younger unemployed (e.g., Buss, 2019; Larsen, 2008b; Naumann et al., 2020), and that migrants are viewed as less deserving than non-migrants, regardless of similar contributions or missteps (Kootstra, 2016, 2017; Reeskens & van der Meer, 2019).

The results strongly support the hypothesis that young people also rely on deservingness evaluations when deciding on welfare support. The overall deservingness of the unemployed is a significant predictor of welfare attitudes towards social rights and obligations, even when controlling for important confounders such as performance evaluations, self-interest, and political values. Moreover, this relationship functions similarly to that observed in adults (see the deservingness model: Laenen, 2020; van Oorschot & Roosma, 2017), where higher overall deservingness is associated with support for more generous benefits and a greater likelihood of endorsing less strict obligations. Further evidence for these claims comes from the fact that differences in deservingness assessments are mirrored in significant differences in welfare attitudes. For example, older unemployed people are perceived as significantly more deserving

⁸ Students from the other language regions were not included as they follow slightly different regional curriculums than the cantons in the German-speaking part of Switzerland (D-EDK, 2016). Moreover, this prevents potential bias in the results caused by translation effects of survey items or cultural and economic differences.

than younger unemployed, and correspondingly, respondents favor higher replacement rates for older unemployed. Similarly, unemployed people with EU passports are seen as significantly less in control of their unemployment compared to the Swiss unemployed, and in line with that, the government is seen as less responsible for providing jobs for the Swiss unemployed. These aggregate linkages strongly suggest that young people express meaningful and coherent deservingness opinions and welfare attitudes, aligning with the positive assessment of young people's political views in section I.2.3.

However, while the mechanism by which deservingness affects welfare attitudes appears to function similarly among young people and adults, and while some trends are consistent between these groups (e.g., ranking of older and younger unemployed), there are also stark differences. For example, the results do not show an *inevitable deservingness gap* for migrants (Reeskens & van der Meer, 2019), and the elderly are not seen among the most deserving groups. Both findings deviate from previous adult-centered research. Determining whether these differences represent generational changes requires further investigation, ideally through longitudinal designs capable of distinguishing age, period, and cohort effects (see Bell, 2020).

In conclusion, deservingness evaluations play a significant role in young people's decisions regarding welfare support. Following the logic of competence outlined in Section I.3, it is essential to consider the deservingness heuristic when aiming to foster competencies in welfare support decisions among young people. The next step is to identify *relevant* information and *harmful* misinformation affecting deservingness. This task is addressed in detail in the third paper of the dissertation.

I.4.5 Extended Summary and Selected Insights of Paper 3

The third paper of this dissertation, 'Misinformed Deservingness? Assessing Youth Competence in Welfare Support Decisions', builds upon the insights from the first and second papers and aligns closely with the overall framework presented in Sections I.2 and I.3. First, it defines a transparent competence criterion for welfare support decisions, following the recommendations set out in Section I.3 (see also Kuklinski & Quirk, 2001; Lupia, 2016). This criterion is based on insights from papers 1 and 2: Young people rely on deservingness considerations when deciding on welfare support (Paper 2), and welfare-state related misinformation might affect deservingness evaluations and, consequently, welfare support (Paper 1). Accordingly, the criterion posits that welfare support decisions via deservingness evaluations can be deemed competent if the deservingness evaluations are not based on misinformation. The performance standard is defined by the amount of influential misinformation, that is, misinformation significantly associated with deservingness opinions. The advantage of this criterion is that it accounts for legitimate differences in ideology and values, while only using people's influential misinformation as the basis for assessing competence. In the second part, the paper

investigates potential sources of influential misinformation to provide insights that can help foster competencies in welfare support decisions. Amongst others, this includes studying the impact of engaging with key socialization agents, following previous calls to consider political socialization processes in welfare attitude research (see Neundorf & Soroka, 2018).

Methodologically, the study also relies on the survey data collected on adolescents in the German-speaking part of Switzerland but with a different focus. The study investigates unemployment-related beliefs as independent variables and the overall deservingness of the unemployed as the dependent variable. The study thus aims at a narrower focus of knowledge, that is declarative memory of specific facts. While this does not cover the full range of knowledge (see section I.3), it is a legitimate starting point (see Converse 2000) to confirm plausible connections between knowledge, misinformation, and deservingness, as outlined in Paper 1. Moreover, focusing on narrower political facts also provides a more transparent ground for truth discussions (see I.3.4 and Geiger, 2018). Consistent with the recommendations from Paper 1, the study focuses on specific policy knowledge rather than general political knowledge (see Gilens, 2001), and the selection of the knowledge items is guided by a logical connection to the deservingness criteria. Additionally, respondents' confidence in their beliefs is measured for all knowledge items to distinguish between the uninformed and the misinformed (Kuklinski et al., 2000). Specifically, the survey included statements about institutional rules (e.g., eligibility rules of unemployment benefits) that respondents judged as true or false (termed qualitative questions: (Ansolabehere et al., 2013), multiple-choice questions about the social spending areas with the highest/lowest expenditure, and estimation tasks regarding outcomes (unemployment rate, benefit overuse rate, poverty rate among the unemployed).

Misinformation, defined as firmly-held false beliefs (Kuklinski et al., 2000), is a key concept in this study as it is used for the competence evaluations (amount of influential misinformation as performance standard). Therefore, much attention is given to a transparent presentation when a participant's response can be considered false or true (see also Geiger, 2018, section I.3.4). For the qualitative questions, answers were compared to existing institutional rules and classified as false if they deviated from the existing rules. For the multiple-choice questions (expenditure) and estimation tasks (outcomes), responses were evaluated against official statistics from reputable state institutions such as the State Secretariat for Economic Affairs (SECO). The study deviates from previous studies (e.g., Geiger 2017, 2018) by avoiding using arbitrary thresholds when evaluating the estimation tasks. Defining thresholds might mask qualitative differences between responses. For instance, overestimations of 6 percentage points and 50 percentage points could be treated equally if correct answers are defined as the official statistic +/- 5 percentage points. Instead, all analyses of estimation tasks rely on distance variables based on the degree of over-/underestimation relative to the official statistic. The combined approach of investigating deviances from existing institutional rules and over-

/underestimations of official statistics is considered the most objective and evidence-based approach for evaluating the correctness of beliefs while acknowledging the inherent uncertainty underlying all political facts (see also I.3.4 and I.5.2).

Regarding the results, the average participant's competence appears satisfactory when applying the performance standard, measured by a constructed influential misinformation index. However, misinformation remains a concern. Most participants are somewhat misinformed, and in many instances, misinformation is associated with changes in deservingness evaluations. Associations are primarily present for simpler aspects of benefit design (e.g., eligibility rules, sanctions) and outcomes (unemployment rate, benefit overuse) and not so much for more complex quantitative questions on expenditures or replacement rates. Moreover, the effects of associations increase with higher confidence in false answers and higher overestimations. The analysis also reveals a special role of benefit overuse beliefs, with a negative association of overestimations and deservingness evaluations existing even for participants who stated that they have guessed. Given that the average participant overestimated the official benefit overuse figure from SECO by over 20 percentage points, this is particularly troubling.

The findings regarding potential sources of influential misinformation are equally concerning. The study suggests that directional motives, where individuals' beliefs are shaped by their political orientations (Jerit & Zhao, 2020), already serve as a source of influential misinformation among young people. Accordingly, misinformation could worsen if participants become more entrenched in their politically oriented beliefs. This is plausible given that young people are often assumed to be more politically open than adults (Alwin & Krosnick, 1991; Neundorff & Smets, 2017). Similarly troubling are the results regarding parental influence, which show a U-shaped association between talking about politics with parents and influential misinformation. Students who discuss political topics with their parents daily display the highest level of influential misinformation. This suggests that political misinformation could be transmitted similarly to political orientations in highly politicized households where parents provide numerous cues (see Jennings et al., 2009). Conversely, discussing political topics in schools and classes does not appear to mitigate the issue of influential misinformation, confirming insights from I.2.3 and I.3.5 that fostering competencies requires tailored educational strategies.

The paper concludes by recommending an educational strategy to foster competencies in welfare support decisions, consisting of three key components: developing learning environments that incorporate information associated with deservingness; addressing existing misinformation, particularly about benefit overuse; and strengthening students' skills in detecting misinformation before they are misinformed (see *prebunking*: Lewandowsky & van der Linden, 2021). *Prebunking* could be particularly important as it has been shown to be effective across age groups, cultures, and political ideologies, which is crucial considering that misinformation often comes from directional motives (Jerit & Zhao, 2020).

I.5 Discussion: Lessons Learned and Lessons to Be Learned

The final chapter of the conceptual framework critically examines the contributions of this dissertation and outlines key areas for future research. First, it presents the lessons learned, followed by the lessons to be learned, before ending with a summary and concluding remarks.

I.5.1 Lessons Learned

The theoretical framework (sections I.2 and I.3) and the insights from the papers (see Section I.4) provide a compelling case study on how to improve competencies in welfare support decisions among young people. Besides proposing a competence framework for fostering political competencies among young people more generally (Section I.3), the dissertation applied the framework to the task of deciding on welfare support in the three interrelated papers. To recall briefly, Paper 1 proposed a theoretical account of how knowledge and misinformation affect deservingness considerations and, by extension, welfare attitudes. Moreover, it proposed a research agenda on how to investigate the latter, especially with young people in their *impressionable years*. Papers 2 and 3 followed this research agenda, examining the relationship of unemployment-related beliefs, deservingness opinions, and welfare attitudes of adolescents in Switzerland at the end of mandatory schooling. The papers confirmed the relevance of deservingness for welfare attitudes (Paper 2) and identified relevant unemployment-related misinformation significantly associated with deservingness evaluations (see Paper 3). To improve competencies, an educational strategy was proposed for schools and educators (see Paper 3). However, the theoretical contribution of this dissertation goes beyond laying the conceptual foundation for fostering competencies in welfare support decisions among young people. The papers and conceptual framework also contribute to the broader literature on political competence, political education, welfare attitudes, and political socialization. These contributions are briefly summarized in the following sections.

Political Competence and Political Education

The dissertation highlights the critical importance of political competencies in contemporary democracies and emphasizes the need to focus specifically on young people (Section I.2). Furthermore, the papers confirm that the adapted task-based approach presented in Section I.3 is valuable in developing strategies to foster political competencies by identifying *relevant* information and *harmful* misinformation. Paper 3, in particular, supports the argument that caution is needed when claiming that people should know specific facts to become more competent at a political task (Lupia, 2016). Any such claim must be theoretically justified and empirically tested, as was done in Papers 1-3. Besides effectively synthesizing and applying existing theoretical frameworks to enhance political competencies, the dissertation also significantly expands these discussions. Section I.3.5, for instance, elaborates on how fostering competencies among young people requires distinct considerations. Moreover, it connects it to political

socialization research, highlighting the crucial role formal education could play in this process (especially during mandatory schooling).

Additionally, a notable contribution is the extension of previous political competence discussions to focus more closely on the adverse effects of influential misinformation, a theme explored in Section I.3.4 and Papers 1 and 3. While defining competence as the absence of influential misinformation (Paper 3) opens up epistemological debates regarding what qualifies as misinformation (see I.3.4 and I.5.2 below), it has the benefit of establishing less contested competence criteria. No definition of competence is compatible with decisions being based on *false* beliefs that lead to different outcomes than if one were not *misinformed* (see also Paper 1). This also touches upon an ongoing debate in the political misinformation literature about ‘what counts as a successful correction: a change in beliefs, attitudes, or some combination of the two?’ (Jerit & Zhao, 2020, p. 90). Insights from Section I.3 and Paper 3 suggest that aiming solely on attitude changes (here: welfare attitudes) may not be an appropriate evaluation standard, as this would fail to account for legitimate differences in ideology and values.

By applying and expanding the competence literature in this way, the dissertation demonstrates theoretically and empirically that scholars and educators must focus more closely on misinformation among young people going through the *impressionable years* and its implications for developing political competencies. This call extends beyond political science to the field of political education, where ongoing debates about the role of student knowledge and misconceptions persist (see Caduff, 2020 for a summary). While some scholars emphasize the importance of studying misconceptions in political education (e.g., Petrik, 2007, 2011; Reinhardt, 2005; Weißeno et al., 2010), others refuse to label student conceptions as misconceptions, arguing that normative truth claims should be avoided in the political sphere (Autorengruppe Fachdidaktik, 2015). However, such an interpretation disregards the different degrees of uncertainty in information and the consequences of not addressing misinformation (see I.3.4). Given that political competence and education research must examine and deal with structural problems that could hinder competence development, which might be the case if students are systematically misinformed (also Hahn-Laudenberg, 2017), the dissertation proposes that influential misinformation should be taken more seriously among political education scholars. Ignoring misinformation could interfere with learning success, considering the role of prior beliefs in learning and processing new information (Strike & Posner, 1992; Torney-Purta, 1995). Consequently, the relevant question is not whether student conceptions can be labeled as false but how to agree on which answers or conceptions should be considered false, which is an epistemological challenge discussed below (I.5.2).

Welfare Attitude Research

The dissertation also contributes significantly to welfare attitude research, which focuses mostly on assessing the legitimacy of the welfare state (for original contributions: Coughlin, 1980; Taylor-Gooby, 1985) and evaluating the scope for policy change (Häusermann, 2023). In times of frequent welfare state reform, a central task of this research field is identifying the contextual and individual determinants driving welfare attitudes, including exploring the role of deservingness considerations (see van Oorschot, 2000). Papers 1-3 contribute significantly to this endeavor. The new research agenda proposed in Paper 1 has the potential to yield relevant insights that could inform current welfare deservingness models (Laenen, 2020). Paper 3 confirms the significant role of misinformation in deservingness evaluations, as outlined in Paper 1. It extends previous research (Geiger, 2017) by examining these issues through the lens of youth and misinformation. Since the findings strongly suggest that confidence in beliefs matters, future research should continue to explore this agenda.

Paper 2 offers additional important insights into deservingness and welfare attitude research by being the first study to assess the deservingness-attitude link among young people. This underscores the fundamental role deservingness plays in welfare support decisions (see also Laenen, 2020; Meuleman et al., 2017). After all, confirming a strong association between the deservingness evaluations and welfare attitudes among young people provides further support to previous accounts suggesting an evolutionary origin of the deservingness heuristic (e.g., Petersen 2012, 2015). This also fits the hypothesis that people universally rely on deservingness considerations to decide on welfare support (see Fong et al., 2006; Petersen et al., 2011, 2012). Additionally, Paper 2 enhances the understanding of deservingness by revealing that different deservingness criteria drive support for social rights compared to social obligations. Moreover, it explores similarities and differences in deservingness opinions between adults and young people. The diverging accounts (e.g., the absence of a migrant deservingness gap and lower deservingness of the elderly) open a valuable discussion about the stability and malleability of deservingness opinions and welfare attitudes, raising questions about age, period, and cohort effects.

Political Socialization

The insights and questions outlined in the last section are closely connected to political socialization. By exploring deservingness opinions and welfare attitudes among young people, the dissertation extends the scope of previous research beyond the traditional focus on partisanship and political orientations (Neundorf & Smets, 2017; Sears & Brown, 2023 for reviews). This follows calls to examine young people's welfare attitudes and their determinants in the *impressionable years* and discuss how such attitudes might persist into adulthood (Neundorf & Soroka, 2018). Paper 2 provides valuable insights into potentially enduring differences in

deservingness perceptions that may represent cohort effects (e.g., the absence of a migration deservingness gap) while distinguishing these from differences that will likely fade as young people enter the workforce (e.g., lower emphasis on *reciprocity*). However, further research is necessary to draw definite conclusions, requiring longitudinal designs.

The dissertation also contributes key insights into how political competencies could be and are shaped by different socialization agents. Formal education is identified as the ideal socialization agent for fostering competencies in welfare support decisions (see I.3.5, Paper 1). Moreover, Paper 3 suggests that future research testing the effect of educational interventions must also consider interactions with other socialization agents, such as parents, who might influence young people's misinformation.

Lastly, the findings confirm prior political socialization research by demonstrating that young people should be taken more seriously in research and the political sphere (van Deth et al., 2011). Paper 2 particularly demonstrates that adolescents in secondary school can engage with complex social policy issues and have meaningful and coherent welfare attitudes and deservingness opinions. In turn, this is important for debates about the political representation of young people and their involvement in political and policy decision-making processes (Stockemer & Sundström, 2022, 2023).

I.5.2 Lessons to Be Learned: Future Research Trajectories

While the dissertation provides a valuable conceptual foundation for fostering competencies in welfare support decisions among young people and provides important additions to the existing competence framework, there are limitations and 'lessons to be learned' that need to be addressed in future research. The following subsections outline areas for further exploration when aiming to foster competencies in welfare support decisions and political competencies more generally among young people.

Beyond Theoretical Considerations

The first critique is practical. While the dissertation offers a solid conceptual foundation for fostering competencies in welfare support decisions among young people, the next step is to implement these insights into educational practice. Paper 3 provides a valuable starting point by outlining what needs to be done: developing learning environments that incorporate the information identified as *relevant* for deservingness, tackling existing misinformation, and strengthening skills to detect misinformation.

For the development of learning environments, it is crucial to consider the battle for attention when (young) people are presented with new political information (Lupia, 2016), emphasizing the importance of accounting for information processes. Related to this, it might be necessary to explore deeper existing student conceptions (e.g., why do most young people conceive such high rates of benefit overuse and is it based on a particular source) to develop high-quality

learning environments based on proven pedagogical frameworks such as the model of didactical reconstruction (Kattmann et al., 1997; Lange, 2017).

For the second and third goals of tackling and preventing influential misinformation, Paper 1 paints a promising path for future research. Research should cooperate with schools, and particularly teachers, in testing to what extent it is possible to effectively combat and prevent misinformation in a supervised environment. Besides debunking or challenging existing misinformation (Lewandowsky et al., 2020), great potential might lie in prebunking approaches. For example, it could be promising to make students aware of disinformation techniques (Lewandowsky & van der Linden, 2021). Initial studies following this path already show first success in classroom settings (Axelsson et al., 2024).

Overall, the dissertation painted the great potential of formal education in fostering political competencies and competencies in welfare support decisions more specifically (I.3.5, Paper 1, 3). Utilizing this potential is only possible by developing tailored educational strategies, which require testing the causal effect of educational interventions using experimental designs and later implementing them on a large scale into educational practice. The latter would be a big contribution considering the lack of studies assessing the causal effect of civic education interventions (Campbell, 2019; Geboers et al., 2013) and the missing implementation of study results into educational reality (e.g., Weißeno 2021).

Beyond the Case Study on Adolescents in Switzerland

A second critique concerns the generalizability of results. While the theoretical framework presented in Sections I.2, I.3, and Paper 1 is widely applicable, both empirical studies (Paper 2, 3) focused on students living in the German-speaking part of Switzerland at the end of mandatory schooling. The single case study was chosen as a suitable baseline for future comparative research as it allows for controlling unobserved contextual factors that might influence the variables of interest (for a similar argumentation: Neundorf & Soroka, 2018). Overall, the studies were successful in this regard as they provide relevant insights beyond the Swiss context. This includes confirmation that young people can be misinformed on welfare-state related matters, that some of these beliefs are associated with deservingness, and that deservingness evaluations inform welfare support decisions. The same goes for the potential influence of socialization agents (e.g., parents) on misinformation. The general mechanisms of these findings are expected to apply to young people in other contexts, legitimizing future research efforts.

However, at the same time, it is not possible to generalize all results directly to youth in other countries. For example, as contextual factors like the institutional system, culture and media can influence deservingness opinions (e.g., Laenen, 2020; Larsen, 2006; Larsen & Dejgaard, 2013), the deservingness evaluations of young people in other countries might differ from those

in the German-speaking part of Switzerland, and with it, their welfare attitudes. The same could also be true for Swiss adolescents from other language regions (see also Paper 2). Similarly, while it is to assume that young people in other countries are also misinformed on welfare-state related matters, the amount of influential misinformation might differ as well as the specific information people are misinformed about. Consequently, future research should expand its focus within and beyond Switzerland and explore the *knowledge-deservingness-attitudes nexus* in a comparative design accounting for multiple contexts. This could enrich welfare deservingness theory and reveal educational needs specific to different countries and regions.

Beyond that, scholars should also expand the age range of participants, as proposed in Paper 1. Previous political socialization research demonstrated that people's political lives begin very early (Bartels & Jackman, 2014; van Deth et al., 2011). Accordingly, it might be worth investigating younger individuals, for example, in primary schooling. While this would require additional ethical precautions (see Alderson & Morrow, 2020), it could lead to important insights. For example, it could provide further evidence of the extent to which relying on deservingness considerations as a heuristic for welfare support decisions is indeed a deeply ingrained cognitive shortcut. Such research would also align with longstanding arguments, emphasizing the importance of early political socialization (Easton & Dennis, 1969).

Beyond Association and Cross-Sectional Design

Another limitation refers to questions of causality between welfare-state related beliefs and attitudes, which are likely bidirectionally related (see Paper 1). While Paper 3 identified potentially *relevant* information and *harmful* misinformation, despite its multiple control variables, the cross-sectional design used in the study is limited in its ability to depict causal relationships without some uncertainty. Accordingly, future research should follow the advice in Paper 1 and approach these informational candidates with methods better suited to approach causality. For example, scholars could implement survey experiments manipulating potentially influential information (e.g., Jensen & Kevins, 2019), or rely on instrumental variables (e.g., Jaeger, 2008), multiple measurements (e.g., in panel designs: Jæger, 2006), difference-in-difference designs (for example, Jerit & Barabas, 2017) and randomized-control trials.

Addressing potential causality issues is particularly warranted given the results in Paper 3, suggesting directional motives among young people. Such research could also help clarify the role of benefit overuse beliefs. For example, studies could investigate whether young people actually believe the widespread occurrence of administrative errors and benefit fraud and use this information in their evaluations, or whether they have a deservingness level in mind and state a fitting level of benefit overuse.

More generally, future research could profit from more longitudinal research designs. This would not only help with issues of causality but also demonstrate the stability of beliefs,

deservingness opinions, and welfare attitudes over time. While costly and time-consuming, such studies could enrich all the research fields discussed above. For example, they could help demonstrate the effectiveness of educational interventions and programs, disentangle period, age, and cohort effects (Bell, 2020), and by this, more reliably inform us about the future of the welfare state.

Beyond the Unemployed and Unemployment

While the theoretical account presented in Paper 1 addresses deservingness across different target groups, both empirical papers focused primarily on the unemployed and unemployment-related beliefs. While unemployment is the most prominent risk for young people and thus can be seen as a legitimate starting point, future research should go beyond this social risk. Paper 2 provides preliminary evidence that young people also rely on deservingness evaluations as a guideline to decide on support for other target groups. Widening the focus to other target groups might reveal additional influential misinformation, relevant to young people's competencies in welfare support decisions. Paper 3's conclusion suggests it would be valuable to investigate target groups usually seen as more deserving, such as the sick. Previous research has argued that people have an inherent bias in seeing sickness as something randomly distributed within the population, despite factors like smoking or unhealthy diets contributing to unequal probabilities of illness (Jensen & Petersen, 2017). In such cases, misinformation could work in a 'pro-welfare direction', in contrast to the 'anti-welfare direction' detected for the unemployed (see Paper 3).

Beyond Deservingness and Beyond Welfare Support Decisions

The next avenue for future research is to consider a wider scope of factors or heuristics that might influence welfare support decisions beyond deservingness. This means of course not to downplay the role of deservingness for people's welfare support decisions. Deservingness is confirmed in this dissertation as a fundamental aspect guiding young people's welfare support decisions (see Laenen, 2020; Meuleman et al., 2017 for adults). It was identified as a strong predictor for social rights and obligations for almost all attitudinal items (see Paper 2). This relevance insofar is not surprising as deservingness evaluations are argued to be a deeply ingrained cognitive heuristic. Moreover, as deservingness is a target-group-focused approach, it likely affects most welfare attitudes, given that social policies are generally targeted to specific groups (Laenen, 2020; van Oorschot & Roosma, 2017).

However, this still does not mean that deservingness evaluations impact all welfare attitudes. For example, the relationship between deservingness and social investment and deservingness and trade-offs in policies (e.g., social compensation vs. social investment) is less clear (see Paper 2). Other factors or heuristics might drive these decisions, which could be influenced by different (mis)information.

Moreover, the task of fostering political competencies among young people does not end with enhancing competencies in welfare support decisions. Thus, future research should continue this line of work with other politically relevant tasks (e.g., voting), theoretically derive what knowledge and misinformation might affect competence for these tasks, define transparent and objective competence criteria, and empirically validate the claims (see also paper 3).

Beyond Narrow Political Facts? Challenges of Assessing Contested Political (Mis)information

A key insight from this dissertation is the need to focus on welfare-state related misinformation when aiming to assess and foster competence in welfare support decisions among young people (Papers 1, 3). More generally, it is argued that political science and education scholars should pay closer attention to political misinformation and its impact on political competencies (see I.5.1). While examining misinformation on narrow political claims such as institutional rules and statistical estimations of key figures led to important insights (Paper 3), expanding this research agenda requires addressing also more complex and contested claims, which carry considerably higher uncertainty (Vraga & Bode, 2020).

Addressing more contested political (mis)information comes with additional difficulties, as can be illustrated when looking at causal claims. The uncertainty around causal connections in the political context is much greater than in simpler factual claims, yet they are often treated as definitely true or false in political discourse (Uscinski & Butler, 2013). Misinformation on causal claims can have severe consequences when politicians spread false or ambiguous information, such as the claim that vaccines cause autism (Davidson, 2017) or overstating the connection between welfare generosity and increased migration, which can lead to the exclusion of people from social welfare (Ferwerda et al., 2024).

The same evaluative standards that apply to more narrow political facts (see I.3.4) should be used to approximate truth in more contested claims. This means a claim should be considered false or unreliable if it deviates from the best available evidence and expert opinion (Nyhan & Reifler, 2010). Among the *custodians of knowledge* (Jamieson, 2015) that contribute to collective knowledge, scientific inquiry, and more precisely scientific consensus, is perhaps the most reliable way for determining the validity of causal connections. This is because scientific claims are validated in a rigorous social process that can correct mistakes over time (Oreskes et al., 2019), and scientific discoveries held in strong consensus are argued to be robust and enduring (Vickers, 2023). However, this comes with further epistemological challenges, such as defining what constitutes a consensus⁹ and who qualifies as an expert for the specific topic (Uscinski et al., 2024; Vraga & Bode, 2020). Additionally, the best available evidence may change over time (Vraga & Bode, 2020), particularly in newly emerging topics (e.g., Covid-19).

⁹ Vickers (2023) provides an interesting argument in this context that if at least 95% of the wide, international scientific community agrees that a phenomenon can be described as a scientific fact, such claims have never been overturned.

Generally, all existing claims, including those coming from other sources of knowledge than science, must be evaluated critically and compared impartially when dealing with (contested) claims. However, openness to different viewpoints should avoid slipping into extreme constructivism, where, in the worst case lay opinions and scientific rigorous inquiry are treated as equally valid in approximating truth (Boghossian, 2007; Hacking, 2000; Kata, 2012). Instead, truth discussions on contested claims should begin by identifying more and less credible evidence and information and then proceed to determine the current best approximation of truth based on the selected evidence. In turn, this means that a shared body of knowledge is necessary to engage in meaningful discussions on contested political (mis)information.

However, this shared body of knowledge is increasingly at risk. Scholars have recently noted growing symptoms of a *post-truth society*, characterized by general disbelief in objective facts and truth (d'Ancona, 2017; McIntyre, 2018), and an increasing problem of *science denial* (Sinatra & Hofer, 2021). Overcoming these challenges requires rebuilding the ties between citizens and legitimate authorities (Enroth, 2023), in part by fostering understanding and trust in the scientific process and consensus (Oreskes et al., 2019; Sinatra & Hofer, 2021; Vickers, 2023). This does not mean presenting scientific knowledge as something absolute or infallible but recognizing scientific inquiry and particularly scientific consensus as a legitimate approximation of truth (Vraga & Bode, 2020).

Science education could play an important role in this context, by moving away from overemphasizing the constructivist nature of learning processes and instead promoting a realistic open-mindedness based on the principles of scientific inquiry: assuming a working truth to gain new insights while remaining open to adapting it to new discoveries and evidence (Harding & Hare, 2000). Moreover, to reach a shared understanding of the best available evidence, dialogue and public deliberation could be essential (Fishkin, 1997; Habermas & Rehg, 1998). Ideally, deliberation would facilitate critical evaluation and agreement on what constitutes valid evidence on contested matters and how to interpret it. Such an approach could also reduce the perception of an expertocracy (Rodríguez-Arias & Véliz, 2013), which could otherwise further erode trust in authorities.

Strengthening the shared body of knowledge is essential not only for addressing more contested political misinformation but is also the key prerequisite for discussing less controversial factual claims, such as the unemployment rate or the existence of institutional rules. If people lose trust in information from public authorities like governmental institutions, the media, or science, it becomes impossible to agree on what constitutes false information. In turn, this reveals a broader dilemma, particularly for states where free speech and thought in science, journalism, and public discourse are under threat. If valid approximations of truth and establishing a shared body of knowledge require reliance on public deliberation and information from trusted authorities, how can this process function in countries where the institutional framework

for public knowledge production is impaired? This reinforces Galston's (2001) argument that democracy depends on both well-designed institutions and politically competent citizens.

Considering the effect of influential misinformation on political competencies, this then also refutes arguments that addressing (contested) political misinformation is unethical or undemocratic because it tells people what to think (e.g., Bretter & Schulz, 2023; Freiling et al., 2023). The opposite seems to be true, as disinformation campaigns are often politically motivated, can undermine trust in democratic processes, and hinder people's participation in informed deliberation and decision-making (Ecker et al., 2024; Lewandowsky et al., 2023).

In conclusion, research on political misinformation and its impact on competencies must extend beyond more narrow and uncontested political facts (Vraga & Bode, 2020). However, this is only possible when deliberately agreeing on what counts as valid evidence and what to conclude from it. Without such an agreement, moving further from a shared body of knowledge could not only hinder the development of competencies but pose a threat to democracy. In the words of Hannah Arendt (1951, 474, italic added):

'The ideal subject of totalitarian rule is not the convinced Nazi or the convinced Communist, but people for whom the distinction between fact and fiction (i.e., the reality of experience) and the distinction between true and false (i.e., the standards of thought) no longer exist.'

I.5.3 Final Remarks

In conclusion, this dissertation establishes the conceptual groundwork to foster political competencies among young people, with a particular focus on welfare support decisions. The framework paper provides a theoretical motivation highlighting the importance of young people's political competencies for the well-being of democracy. Moreover, it introduces a task-based framework for fostering competencies in politically relevant tasks among young people in their *impressionable years*. In short, the approach requires theoretically deriving a connection between knowledge, misinformation and performance in politically relevant tasks under considerations of how people process political information and use heuristics to deal with political tasks. Moreover, an empirical investigation of these claims is required, which rests on defining a transparent and measurable competence criterion. This approach is applied to welfare support decisions in this dissertation through three interrelated papers.

Through a comprehensive literature review, Paper 1 examines the complex relationship of knowledge, misinformation, and welfare attitudes through the lens of welfare deservingness (*knowledge-deservingness-attitudes nexus*) and proposes a research agenda in this regard. Besides clarifying open methodological and conceptual questions, it emphasizes the need to focus on young people when investigating the *nexus* and presents the benefits of addressing influential misinformation in schools. The empirical studies (Papers 1 and 3) follow the agenda by presenting case studies on young people's unemployment-related beliefs, deservingness

opinions, and welfare attitudes. This is done by relying on original survey data of adolescents in the German-speaking part of Switzerland at the end of mandatory schooling. Paper 2 confirms that young people rely on deservingness considerations when deciding on welfare support. Paper 3 investigates the specific beliefs and misinformation associated with deservingness evaluations and identifies potential sources of influential misinformation. These findings not only validate the theoretical arguments but also contribute to the broader literature on political education, political competence, political socialization, and deservingness and welfare attitudes.

Returning to the three central questions posed in the introduction, the developed task-based approach proved to be effective in identifying *relevant* information and *harmful* misinformation to competence in (unemployment-related) welfare support decisions among young people. Following the results from Paper 3, when aiming to improve unemployment-related welfare support decisions among young people at the end of mandatory schooling in Switzerland, scholars and educators should focus on aspects of benefit design (e.g., existence of eligibility rules, generosity for recipients with kids, existence of sanctions) as well as important outcomes like the unemployment rate and particularly benefit overuse. Expenditures seemed to be less relevant. Importantly, confidence in beliefs matters strongly, underscoring the need to focus on misinformation, defined in this dissertation as firmly held false beliefs (Kuklinski et al., 2000).

Regarding the third question, educational interventions in mandatory schooling were identified as the best opportunity to implement the findings into practice (see section I.3.5, papers 1, 3). However, for this not to become yet another unfulfilled promise that educational efforts could help with societal problems (see Campbell, 2019), several steps are necessary. First, it is essential to develop learning environments based on the results, accounting for the student's conceptions (Kattmann et al., 1997; Lange, 2017). These environments could thematize the abovementioned information, address existing misinformation, and prevent future misinformation. Following Papers 1 and 3, scholars and educators should make students 'aware of potential misinformation before it is presented' (Lewandowsky & van der Linden, 2021, p. 356). Given that more participants in Paper 3 were uninformed rather than misinformed about many items, effort is to be made to prevent young people from getting misinformed in the first place. Looking forward, while this dissertation offers important theoretical advancements and sets a valuable benchmark for future comparative research, much remains to be done to foster young people's competence in welfare support decisions and political competencies more generally. First, future research should expand the sample scope to other age groups and regions within and beyond Switzerland and expand the focus to other target groups beyond the unemployed. Moreover, while the cross-sectional design was a valuable starting point to identify potentially relevant informational candidates, future studies should confirm these results with methods better suited to detecting causality, such as experimental and longitudinal designs (Paper 1).

The latter is especially important, as Paper 3 revealed directional motives as a potential source of influential misinformation, which can be better understood through more robust causal methodologies. Furthermore, future research should go beyond deservingness to understand other aspects affecting competence in welfare support decisions. While deservingness is a very powerful predictor of support for social rights and obligations (Laenen, 2020; van Oorschot & Roosma, 2017), not all welfare attitudes might be shaped by how people think about deservingness, such as attitudes on social investment (see Paper 2). Similarly, the role of deservingness evaluations for attitudes on policy trade-offs must be examined.

Moreover, the task of fostering political competencies among young people does not end at welfare support decisions but should be expanded to other politically relevant tasks. After all, political competence will only be achieved by incrementally strengthening competencies at many politically relevant tasks. This dissertation argues that addressing influential misinformation might be at the heart of this challenging goal. As pointed out throughout the dissertation, a decision based on misinformation, leading to an outcome different from what would result from an informed decision, cannot be considered competent under any defensible conception of competence.

Future research should thus expand existing efforts to investigate the impact of misinformation on competencies beyond narrower (and less contested) political information (Vraga & Bode, 2020) and continue warranted interventions on misinformation (Ecker et al., 2024; Lewandowsky et al., 2023). However, approaching more contested political (mis)information requires not only dealing with increased epistemological challenges (Uscinski et al., 2024; Vraga & Bode, 2020) but would need an agreement on a shared body of knowledge first to evaluate more and less legitimate pieces of evidence and second to agree on more and less legitimate approximations of truth. A proposition derived in the discussion is to restore trust in the entities from which people receive information (Enroth, 2023), which could be best possible through public deliberation (Fishkin, 1997; Habermas & Rehg, 1998). The latter could help strengthen agreement on a shared body of knowledge, which is imperative not only for fostering political competencies but for democracy itself (Arendt, 1951; Lewandowsky et al., 2023).

Referring back to John Lewis (2020), democracy is not a state but an ongoing act, and each generation must actively contribute to its preservation. By identifying and addressing influential misinformation and fostering political competencies, it is possible to assist young people in developing the competencies they need to contribute to the well-being of democracy. However, this effort hinges on a more nuanced understanding of truth in the political sphere. Moreover, it requires a societal consensus on the best approximation of truth.

II. Mind the Gap: Young People and Welfare-State Related Knowledge in Deservingness and Welfare Attitude Research

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Abstract

Welfare deservingness opinions help explain welfare attitudes and hence are crucial for understanding the social legitimacy of the welfare state. However, even when considering deservingness alongside other explanatory frameworks, many open questions remain in the welfare attitude framework. This article argues that a novel research agenda focusing on welfare-state related knowledge and young people could considerably enrich current debates in deservingness and welfare attitude research. Deservingness assessments are made heuristically and could greatly depend on what people know (especially when they are mis-informed). Studying this with young people is highly relevant, as the formative years are crucial for welfare attitude formation and change, even later in life. Research with young people provides unique opportunities for disentangling causal mechanisms between welfare-state related knowledge, deservingness and welfare attitudes. Moreover, it could help challenge welfare-state related misinformation and build resilience against disinformation. This thematic review outlines benefits, blind spots, and research trajectories when focusing on knowledge and young people in deservingness and welfare attitude research.

Keywords

Welfare Attitudes, Welfare Deservingness, Welfare State Legitimacy, Political Knowledge, Youth Attitudes, Misinformation and Disinformation

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II.1 Introduction

In times of frequent welfare state reform, understanding the social legitimacy of the welfare state requires investigating welfare attitudes on different social benefits and obligations but also finding out what drives attitudinal differences (see van Oorschot, 2000). In addition to looking at contextual factors (for example, Blekesaune, 2007; Larsen, 2006), previous studies trying to explain individual welfare attitudes focused on values and self-interest (Hasenfeld & Rafferty, 1989; Jæger, 2006; Kangas, 1997) or, more recently, *welfare deservingness* (Laenen, 2020; van Oorschot et al., 2017). This is not surprising as *who should get what, and why?* (van Oorschot, 2000) is back on the agenda, which justifies studying the social legitimacy of targeted welfare (van Oorschot & Roosma, 2017). In turn, this puts focus on *deservingness* as a strong predictor of targeted welfare attitudes (Laenen, 2020; van Oorschot & Roosma, 2017). However, even when considering *deservingness* alongside other explanatory frameworks, ‘the search for the individual-level determinants of welfare policy preferences is far from over’ (Laenen, 2020: 177).

Political knowledge might be a critical determinant outside the attention of previous research. After all, ‘the more informed people are, the better able they are to perform as citizens’ (Delli Carpini & Keeter, 1996, p. 219), which includes the task of critically assessing the status quo. Indeed, previous studies found significant changes in deservingness perceptions and welfare preferences when simulating a better-informed public (Althaus, 2003; Geiger, 2017; Kuklinski et al., 2000). However, so far, it is unclear why scholars should even assume that knowledge about the welfare state could influence deservingness and welfare attitudes and, if it does, how and with whom to pursue research on this matter.

Through a review of relevant literature, this article argues that focusing on welfare-state related knowledge and young people has the potential to enrich debates about deservingness and welfare attitude research. In what follows, the article a) demonstrates the connection of welfare-state related knowledge to deservingness and welfare attitudes (*knowledge–deservingness–attitudes nexus* – referred to as the *nexus*) and its social policy implications, and b) introduces future research trajectories. A central argument developed is the need to focus on young people, as this could help elucidate the causal mechanisms in the *nexus* and help address problems like welfare-state related mis- and disinformation. Ultimately, pursuing the novel agenda could lead to a better understanding of the social legitimacy of the welfare state.

II.2 Open the Case: The *Knowledge–Deservingness–Attitudes Nexus*

Why should political knowledge matter for deservingness opinions and welfare attitudes? Earlier work argued that low political sophistication results in unstable and random attitudes (Converse, 1970; 2006 [1964]; but see: Achen, 1975; Erikson, 1979). However, later work demonstrated that ambivalence and on-the-spot answer processes were more plausible

reasons for attitude instability (Zaller, 1992), meaning that attitudes of less sophisticated individuals are probably not *random*. On the contrary, an ill-informed citizenry is prone to systematic biases (Kuklinski & Quirk, 2000), which could mean that policy preferences differ if citizens are better informed (for example, Althaus, 2003).

Another perspective is questioning whether political knowledge is even sufficient or necessary for political competence. After all, people could use heuristics to arrive at valuable preferences and decisions despite limited expertise (Lupia, 1994; Popkin, 1994; Sniderman et al., 1991). The difference between less and more sophisticated individuals then lies in different rationales (Sniderman et al., 1991). Political competence would then not be about knowledge but arriving at the same result as if better informed, questioning what people actually need to know (Lupia, 2016). Indeed, people lacking specific knowledge can learn necessary information from their political environment (for example, via interest groups and political parties: Lupia and McCubbins, 1998). Two questions remain: what heuristics guide welfare attitudes, and why would it still matter to be well-informed?

II.2.1 Deservingness as Social Policy Heuristic

Deservingness considerations are a common heuristic used to evaluate social policies. This is related to people focusing on beneficiaries and victims in policy evaluations, which is influenced by group perceptions (see Nelson & Kinder, 1996). For example, support for assistance then depends on whether individuals or groups are perceived to be responsible for their problems or seen as victims of circumstance (Sniderman et al., 1991). Similarly, Petersen et al. (2012) explain welfare support with perceptions of people in need as *lazy* or *unlucky*. Moreover, with deservingness-relevant cues present, people heuristically rely on classifications into cheaters and reciprocators in welfare judgments (Petersen et al., 2011). This is traced back to ancestral small-scale help relationships (Petersen et al., 2011; Petersen, 2012), implying that asking *who should get what, and why* is anchored in our evolutionary history. Accordingly, it makes sense that *deservingness heuristics* are used independent of knowledge, political ideology or cultural heritage (Aarøe & Petersen, 2014; Petersen et al., 2011, 2012).

Assessing deservingness in modern times is not as simple as distinguishing the *lazy* from the *unlucky*, however. For example, many people rely on *us-versus-them* categorizations, best visible in the immigrant deservingness gap (Reeskens & van der Meer, 2019). The CARIN typology is the most comprehensive criteria-set people allegedly use to assess deservingness, employing a *control, attitude, reciprocity, identity and need* criterion. *Deservingness perceptions* (CARIN-criteria scorings) and *deservingness valuations* (CARIN-criteria importance) influence the support for social rights and obligations of target groups (Laenen, 2020; van Oorschot, 2006; van Oorschot & Roosma, 2017).

II.2.2 Deservingness and the Problem of Limited Knowledge and Misinformation

Why focus on knowledge if (deservingness) heuristics *can* lead to sound welfare attitudes? Most importantly, even though people use heuristics independent of knowledge, how and what shortcuts they use depend on what they know and the available information (Kahneman, 2012; Sniderman et al., 1991). Additionally, there is evidence that structural changes stand in the way of learning from the political environment as dealignment processes lead to less-solid ties between people and political parties (Biezen et al., 2012; Dalton, 2014). Moreover, class cleavages and positions of class-related actors are less straightforward than before (Cronin et al., 2011; Kitschelt, 1994), which could make class consciousness (see Korpi, 1983; Stephens, 1979) less important for welfare support. This reduction in the ability to rely on cues from the political environment increases individual responsibility and the relevance of knowledge as more sophisticated individuals are more likely to accept messages and decide corresponding to their political values (Lau & Redlawsk, 2001; Zaller, 1992).

This brings us back to the initial argument that information and knowledge are decisive when using heuristics, which might also be true for deservingness. For instance, deservingness assessments differ significantly in the presence of cues about why a person became unemployed, with only people missing such information resorting to stereotypes (Aarøe and Petersen, 2014). Thus, understanding the reasons for unemployment or knowing the unemployment rate could be important. Indeed, the unemployed are perceived as more deserving in times of high unemployment (Larsen, 2006). Additionally, group-specific perceptions cannot be used as a heuristic when people cannot recognize the beneficiaries or victims of a policy (Piston, 2018).

More important, however, is that 'incorrectly' used shortcuts (Lupia & Johnston, 2001, p. 196) can lead to serious mistakes in judgment. Such errors are most likely when heuristics are based on misinformation, defined as firmly holding false information (Kuklinski et al., 2000). Misinformation of welfare-state related facts is associated with welfare attitudes (Kuklinski et al., 2000) and deservingness perceptions. For example, overestimating the number of benefit claimants or fraudsters is significantly associated with lower perceived deservingness (Geiger, 2017). Such misinformation could result from disinformation in the media framing recipients as less deserving (for example, by highlighting fraud and using stereotypes: Devreux and Power, 2019), influencing support for retrenchment (Slothuus, 2007).

Particularly alarming in this regard is Kuklinski et al.'s (2000) finding that those furthest from an *objectively-correct answer* were most convinced of being right, which was mainly the case in questions on target-group related knowledge (for example, percentage of Black welfare recipients). This means misinformation could also occur regarding information logically connected to deservingness perceptions, as deservingness is a target-group focused approach.

Misinformation guiding deservingness and welfare attitudes is incompatible with any definition of political competency. However, such a claim requires a causal connection between knowledge, deservingness, and welfare attitudes.

II.2.3 Causality and the Nexus

Research on the causal relationship between political knowledge and attitudes could be biased when not accounting for bidirectional causality. The previous sections demonstrated how knowledge and information could influence deservingness opinions and welfare attitudes. Previous studies have already relied on the assumption that knowledge and misinformation might causally influence deservingness and welfare attitudes to simulate the effect of a better-informed citizenry (Althaus, 2003; Geiger, 2017; Kuklinski et al., 2000). However, bidirectional causality is not only possible but likely given that people are motivated reasoners when processing (political) information (Lodge & Taber, 2013; Redlawsk, 2002; Taber & Lodge, 2006). When confronted with new political evidence, people primarily consider information supporting current views, while contradictory information is questioned and argued against (Ditto & Lopez, 1992; Edwards & Smith, 1996). The effect strengthens with stronger attitudes and partisan or political identity (Taber & Lodge, 2006).

These biases help explain why simple presentations of facts are unlikely to change knowledge – let alone attitudes – regarding partisan, racial, and ideologically loaded topics (for example, Abrajano & Lajevardi, 2021; Kuklinski et al., 2000), and even if proper interventions change knowledge, this does not necessarily lead to changing attitudes (Green et al., 2011). Nevertheless, experimental studies also show that people can incorporate information to update their beliefs, group and issue attitudes as well as related policy support (Abrajano & Lajevardi, 2021; Jensen & Kevins, 2019; Kuziemko et al., 2015; Lawrence & Sides, 2014). Overall, this means that bidirectional causality is likely in the *nexus*. Consequently, misinformation-guided deservingness and welfare attitudes could indeed be problematic.

II.2.4 Social Policy Implications of a Flawed Knowledge–Deservingness–Attitudes Nexus

Misinformation guiding deservingness and welfare attitudes is worrisome because flawed deservingness perceptions could drive welfare state reform for targeted social policies via policy responsiveness mechanisms (see Brooks & Manza, 2006; Burstein, 2003). Indeed, there is a strong correspondence between deservingness and social policies, that is, groups seen as more deserving enjoy more generous and less conditional social protection than groups seen as less deserving¹⁰ (Laenen, 2020; also: Larsen, 2008). It then gets very

¹⁰ Groups seen as less deserving are the unemployed, immigrants, and social assistance recipients (Laenen & Meuleman, 2017).

problematic in cases where misinformation guides deservingness opinions in a way that leads to more disadvantageous policies for already worse-off groups.

Simultaneously, distortions could affect policy feedback mechanisms (see Korpi & Palme, 1998; Rothstein, 1998), which can be exemplified for the institutional logic of welfare attitudes that links institutional welfare-policy structures to individual deservingness perceptions (Larsen, 2006). As people outside academia are likely unaware of welfare regimes,¹¹ it is more convincing to assume that meso-level structures (for example, income programs) influence deservingness perceptions (Jordan, 2013; Laenen, 2018). However, this would still require at least some basic knowledge of income programs. For example, assuming implicit higher *reciprocity* scorings and thus deservingness for unemployment benefit recipients than for social assistance recipients only makes sense if a person knows the difference between those programs. The argument is not that there is no institutional logic but rather that individual attitudes may not be shaped by policies or institutions themselves but by *perceptions* of them, which could be influenced by framing from policymakers and the media (Larsen & Dejgaard, 2013). For example, following changes to Danish social policies, anti-immigrant sentiments increased as natives who lost their benefits due to the changes both blamed immigrants for their losses and considered them contenders for increasingly limited support, which populist politicians used to advance their welfare chauvinism agenda (Jørgensen & Thomsen, 2016). Overall, good reasons exist to focus on knowledge in deservingness and welfare attitude research. The remainder of the article will outline future research trajectories, including demonstrating why focusing on young people would be a fruitful approach.

II.3 Trajectories for Studying the *Knowledge–Deservingness–Attitude* Nexus

II.3.1 Conceptualization and Operationalization

Investigating the *nexus* requires clear conceptualization and operationalization of political knowledge, deservingness, and welfare support. For welfare support, scholars can rely on the welfare attitude module of the European Social Survey (ESS) as an excellent reference point accounting for the multidimensionality of welfare attitudes (Roosma et al., 2013). There exists no similarly well-tested set of deservingness measurements (Meuleman et al., 2020), which has limited the comparability of previous work. For instance, many studies investigating deservingness actually measure target-group specific welfare support (for example, the government's role in unemployment protection), making it hard to compare to studies measuring target groups' CARIN-criteria scores. Laenen (2020) suggests that better insights could be gained by clearly differentiating between *welfare deservingness* and *welfare support, relative and absolute deservingness*, and *deservingness valuations* and *perceptions*. Another idea worth pursuing is juxtaposing measurement alternatives to find out what better explains welfare support:

¹¹ Even scholars disagree about the existence and design of welfare regimes (see Seeleib-Kaiser & Sowula, 2020).

general deservingness principles without reference to policies and target groups or public-image approaches asking for the deservingness of specific target groups (see Meuleman et al., 2020). Relying on a common vocabulary (Laenen, 2020) and being transparent in measurements would immediately improve clarity and comparability. Conceptualizing and operationalizing political knowledge poses the biggest problem. Although many contributions exist on how to assess political knowledge, there is wide ‘diversity in the kinds of questions researchers use to operationalize this concept’ (Barabas et al., 2014, p. 840) – which does not even consider that measuring political knowledge should ideally also aim at procedural memory (see Lupia, 2016) or visual forms of knowledge (Prior, 2014). Even when using the narrower, more tractable definition as the ‘range of factual information about politics stored in long-term memory’ (Delli Carpini & Keeter, 1996, p. 10), this is accompanied by many tasks. For example, researchers must clarify what constitutes a fact and whether to focus on general or policy-specific information (Gilens, 2001).

Moreover, after deciding and justifying a set of factual questions, analyzing answers is more complicated than it might initially seem. For example, researchers must transparently define what constitutes a correct answer when questions cannot simply be answered with a right-or-wrong one (Geiger, 2018). They must also consider possible interpretations of don’t-know answers (see Luskin & Bullock, 2011; Mondak & Davis, 2001). Moreover, incorrect responses might not mean misinformation but can represent a lack of numeracy (Ansolabehere et al., 2013), partisan cheerleading or congenial inference (Bullock et al., 2015; Prior et al., 2015; Schaffner & Luks, 2018). Good advice in this regard is using incentives and certainty measures for answers, which also allows for distinguishing the uninformed from the misinformed (Kuklinski et al., 2000).

Lastly, being more transparent about what is measured and avoiding big terms like political knowledge improves comparability (Lupia, 2016). Focusing on welfare-state related rather than general political knowledge is reasonable for the *nexus*. More specifically, when interested in unemployment, researchers should focus on unemployment-related information (for example, spending, benefits, outcomes), the deservingness of the unemployed, and attitudes toward unemployment protection. The latter must be done systematically for various programs and target groups because people rely on different deservingness criteria when asked about different policies and target groups (Heuer & Zimmermann, 2020; Meuleman et al., 2020). However, enhancing methodology is only the first step in determining what (mis-)information matters.

II.3.2 Welfare-State Related (Mis-)Information: What Information Matters?

Finding out what information matters is not only about what people (don’t) know about the welfare state but whether *it affects their deservingness opinions and welfare attitudes*. The

crux is detecting information necessary or sufficient to be competent at political tasks (Lupia, 2016). The few studies on welfare-state related knowledge show poor performance, even among political science students (Jensen & Zohlnhöfer, 2020). Although people can be correct, they are often wrong irrespective of being asked about welfare state input, output, or outcomes. For example, people often think that spending on unemployment is higher than on pensions, are inaccurate about benefit design or overestimate the number of benefit claimants and fraudsters (Geiger, 2018; Kuklinski et al., 2000; Taylor-Gooby et al., 2003; Taylor-Gooby & Martin, 2008).

A promising path forward to detect instances where knowledge or misinformation influences deservingness is testing knowledge logically related to the deservingness criteria. For example, deservingness opinions might be distorted by false beliefs on the unemployment and fraud rate as this confounds the *control*, *reciprocity* and *attitude* criteria. On the contrary, it is less clear how being wrong about who provides social assistance should alter deservingness. More research is needed since some false beliefs are significantly associated with lower/higher deservingness, and others are not (Geiger, 2017). Doing so for different programs and target groups could help determine who is affected most by welfare-state related misinformation, which also requires disentangling causal effects.

II.3.3 Approaching Causality in the Nexus

Clarifying causality is an important issue in the *nexus*, requiring finding out where potential causal relationships between (factual) knowledge and deservingness and welfare attitudes might lie and then testing those with approaches able to do so (Antonakis et al., 2010). An initial step could be conducting cross-sectional studies to test various plausible associations. Afterward, scholars could implement survey experiments manipulating the potentially influential information (for example, Jensen & Kevins, 2019), preferably in a randomized block design, where participants are allocated to blocks based on their knowledge or misinformation (see Abrajano & Lajevardi, 2021). Also useful are instrumental variables (for example, Jaeger, 2008) or multiple measurements, for example, in panel designs (for example, Jæger, 2006), difference-in-difference designs (for example, Jerit & Barabas, 2017) and randomized-control trials. Those would allow testing time-dynamic relationships, long-term outcomes or intervention effects. However, the best approach to causality would mean studying ‘individuals who initially hold no beliefs or preferences about an issue and then track them over time’ (Kuklinski et al., 2000, p. 801). While such data does not exist, it is one of many reasons why studying the *nexus with young people* of different ages could be rewarding and should be considered critical to future *nexus* research.

II.4 Youth and the *Knowledge–Deservingness–Attitudes Nexus*

II.4.1 The Role of Welfare-State Related Knowledge in Younger Years

While there are many reasons young people should be included in deservingness and welfare attitudes research, this article asserts that the potential to disentangle causality in the *nexus* and better prevent misinformation from influencing deservingness and attitudes makes them the key to future research. Studying young people over time in their development offers potential for uncovering causal mechanisms and the role of external influences on knowledge, deservingness, and welfare attitudes. For example, such research could help explore whether political ideology is developed before deservingness opinions as proposed in current deservingness models (Laenen, 2020; van Oorschot & Roosma, 2017).

Additionally, young people could rely even less on cues from traditional political channels than adults, further increasing individual responsibility. Moreover, (social) media socialization processes (Barberá et al., 2015; Prior, 2005) could facilitate and reinforce misinformation through exposure to disinformation. In turn, this sheds light on the extent to which (mis-)information is already connected to deservingness and welfare attitudes at an earlier age.

Asking this is highly relevant as the formative years are central to developing political orientations and knowledge (Jennings, 1990; Neundorf & Smets, 2017). While it is right to assume life-long political learning and attitude change (Neundorf & Smets, 2017), recent research shows that socialization experiences in the formative years are crucial for welfare attitude formation, stability, and change even later in life (Neundorf & Soroka, 2018). Earlier work suggested that the formative years lie between 17 and 25/26 (Jennings & Niemi, 1981). However, as seven-year-olds are already sensitive to political events (Bartels & Jackman, 2014) and show signs of political orientation and knowledge (van Deth et al., 2011), those years probably begin *much* earlier than previously thought (Neundorf & Smets, 2017). Thus, young people from early on must be aware of their social and economic context so that their political baseline is not built upon misrepresentations. This gets especially difficult in the context of ample disinformation, which is a perceived and actual threat facilitated by modern media consumption trends (Newman et al., 2022).

II.4.2 The Problem of Misinformation and Disinformation: Has the (Adult) Train Left the Station?

Young people in their formative years are often seen as particularly vulnerable to disinformation due to their media consumption habits and cognitive development processes (Midgah, 2019); however, there could be a crucial advantage in challenging misinformation and building resilience against disinformation in younger years. Cognitive biases such as motivated reasoning hinder challenging political misinformation as corrections compete with internalized partisan and racial identities and rigid ideological reasoning (Lawrence and Sides, 2014;

Nyhan and Reifler, 2010). Such biases are stronger with more firmly held political identity, partisanship or attitudes. Assuming that young people in the formative years are less politically entrenched (Alwin & Krosnick, 1991; Neundorf & Smets, 2017), it is likely that they are more open to new welfare-state related information and less biased by motivated reasoning and selective exposure (see Hart et al., 2009).

Similarly, young people may better build resilience against disinformation (also, Middaugh, 2019). Increasing age is related to higher exposure, susceptibility and sharing of fake news (for example, Brashier & Schacter, 2020; Grinberg et al., 2019; Guess et al., 2019), explained by cognitive decline, low digital literacy and cognitive biases such as motivated reasoning. Accordingly, developing digital literacy skills when young could be crucial to combating disinformation even in later life, yet young people seem unprepared for this task (for example, Breakstone et al., 2021; McGrew et al., 2018). Pairing this observation with insights from the literature on the *making of citizens* (Neundorf & Smets, 2017), formal education may be a venue for this kind of work.

II.4.3 The Problem of Misinformation and Disinformation: The Role of Schools and Educators

Schools could be ideal for combating youths' welfare-state related misinformation, increasing knowledge and fostering resilience against disinformation. Success in challenging or *debunking* political misinformation can be reached by relying on credible and trustworthy sources and presenting evidence in an appealing and coherent framework instead of only pointing out false information (see Geiger & Meuleman, 2016; Guillory & Geraci, 2013; Lewandowsky et al., 2012, 2020). Ideally, schools could meet these criteria. First, 14-year-old students' trust in schools is higher than in governments, political parties or the media (Schulz et al., 2009). Moreover, trained educators are probably better suited than other socialization agents to promote welfare state conceptions and knowledge appealingly and with context.

Promoting welfare-state related knowledge in schools requires developing effective educational interventions, however. What sounds like a typical task is oddly not well-researched, as reflected in calls for studies assessing the *causal* effect of civic education (interventions) on political knowledge ((Campbell, 2019; Geboers et al., 2013). Although well-designed studies exist aiming to do so (for example, Campbell & Niemi, 2016; Green et al., 2011), these are very rare. Instead, most influential studies on the topic have limits regarding causality (for example, Langton & Jennings, 1968; Niemi & Junn, 1998), are inconclusive or rely on questionable knowledge measurements and poor data (see Lupia, 2016). Future studies should focus on the *nexus* with youth, develop interventions based on the results, and experimentally test the causal effects of those interventions.

In addition, formal education could help build resilience against disinformation (Heyneman, 2021). Schools and educators could facilitate digital literacy skills (Wineburg et al., 2022) and support *inoculation and prebunking*, that is, ‘making people aware of potential misinformation before it is presented’ (Lewandowsky & van der Linden, 2021, p. 356). First experimental studies show successful *inoculation* in a school context by playing the ‘fake news game’ (Roozenbeek & van der Linden, 2019b), which allows users to experience persuasion techniques first-hand. However, more research is needed here, whereby schools could serve as vital research areas, especially because there is a need for research in real-world settings on how to achieve permanent *inoculation* effects and on social aspects (spreading) of *inoculation* (Lewandowsky & van der Linden, 2021). As *inoculation* can be effective independent of culture, age, and partisanship (for example, Roozenbeek et al., 2020; Roozenbeek & van der Linden, 2019a), schools could greatly help in building ‘herd immunity’ against disinformation by being active in *prebunking*.

II.4.4 Practical Considerations for Investigating the Nexus With (Underaged) Young People

While the previous sections focused on why scholars should focus on the *nexus* with young people, the last section presents ways to do so, including methodological and ethical considerations. Age-wise, studies should entirely cover the formative years, that is, starting from six/seven, with special attention given to adolescence as a peak of formative experiences (for example, Bartels & Jackman, 2014; Ghitza et al., 2022). Methodologically, survey items must be adapted to the respondents’ cognitive and emotional abilities to gain valid results (for example, Deth et al., 2011). This should be complemented with qualitative approaches, especially with younger children. The option of follow-up questions and allowing children to express thoughts in their own words could facilitate data quality. Lastly, researchers must consider stricter ethical and data protection standards (Alderson & Morrow, 2020; also Felzmann, 2009). This directly influences sampling, for example, by increasing the complexity of consent processes with lower ages (Alderson & Morrow, 2020). Overall, in quantitative studies, reaching meaningful samples gets more difficult with minors (for example Kahne & Bowyer, 2017). An alternative to costly survey companies and simple convenience samples is *systematically* sampling students in schools. It is possible to obtain meaningful samples through techniques used in large educational studies, such as drawing fixed units of students from schools and classes drawn with probability-proportional-to-size from defined strata (Rust, 2014). Potential hurdles are increased bureaucratic effort and maintaining good contact with gatekeepers (Kristjansson et al., 2013). Willingness to participate could be facilitated by cooperation with (research) institutions specialized in educational practice. Additionally, when interested in *marginalized youth*, scholars should rely on non-traditional sampling (Sanders & Munford, 2017).

II.5 Summary and Conclusion

This article argues that deservingness and welfare attitude research could greatly profit from a new agenda focusing on the *knowledge–deservingness–attitudes nexus*, especially with young people in their formative years. Deservingness opinions are essential for understanding welfare support but could depend on people’s welfare-state related knowledge. People heuristically decide who deserves help, which could be influenced when people lack specific knowledge or information. Being uninformed or misinformed could lead to significant distortions of deservingness and welfare attitudes. Detecting such instances is crucial, as this could interfere with policy feedback and responsiveness mechanisms that drive social policy reform.

Pursuing this research agenda, however, requires thorough scholarly effort starting with a clear conceptualization and operationalization of the main concepts. For welfare attitudes, the ESS is a good guideline. For deservingness, future research could juxtapose different measurements (general deservingness principles versus public image approaches, Meuleman et al., 2020) and rely less on questions measuring target-group specific welfare support. When focusing on declarative memory as a legitimate starting point for political knowledge (Converse, 2000), scholars should investigate welfare-state related knowledge (for example, spending, benefits and outcomes) rather than *general* political knowledge. Information logically connected to the deservingness criteria could be of interest, as this could reveal misinformation.

Second, scholars need to disentangle causality in the *nexus*. Asking *who should get what, and why* is a partisan and ideologically-loaded topic triggering motivated reasoning. Consequently, bidirectional causality in the *nexus* must be assumed. More clarity can come from investigating where causal connections might lie and, afterwards, relying on approaches better able to detect causality (for example, survey experiments).

Disentangling causality in the *nexus* is just one of many reasons why focusing on young people in their formative years would be valuable. How knowledge or misinformation influences deservingness in younger years is unclear. The same is true for the connection between deservingness and welfare support. Exploring this is crucial as experiences in the formative years help to explain attitude stability and change even later in life (Neundorf & Soroka, 2018). Additionally, stronger cognitive biases in adulthood make challenging misinformation and building resilience against disinformation more difficult. Schools as key socialization actors could play a special role here. They *could* be ideal for combating youths’ welfare-state related misinformation, promoting knowledge and fostering resilience against disinformation. However, proving this to be true requires studying the causal effects of political education (interventions). Otherwise, this recommendation will be just one of many claiming that increased educational effort helps with societal problems without proper evidence (Campbell, 2019).

Although research with young people in the formative years presents methodological, ethical and practical challenges, it can offer unique insights as most studies focusing on ‘youth’ only include adults. Ultimately, taking on the novel agenda would clarify our understanding of the welfare state’s social legitimacy by showing how what we (don’t) know about the welfare state affect our deservingness opinions and welfare attitudes.

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III. Deservingness and Welfare Attitudes Through Young Eyes: The Future of the Swiss Welfare State

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Abstract

This article demonstrates the value of including youth in deservingness and welfare attitude research by investigating Swiss adolescents' deservingness opinions and welfare attitudes (N = 1601, mean age = 14.6). Through a survey experiment focusing on different unemployed groups and unemployment-related policies, the study revisits prominent research results like the immigrant deservingness gap from a novel perspective, generating insights relevant within and beyond the Swiss context. First, deservingness is a vital predictor of attitudes towards social rights and obligations already in younger years. Moreover, while some patterns of adult-centered studies are replicated (older unemployed are seen as more deserving than younger unemployed), there are also stark deviations: EU unemployed living in Switzerland are not seen as less deserving than Swiss unemployed. More research focusing on youth can enhance the social legitimacy of policies, clarify the relationship between deservingness and welfare attitudes, and potentially indicate what to expect from the future of the welfare state.

Keywords

Impressionable years, Social legitimacy, Welfare attitudes, Welfare deservingness, Youth attitudes

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III.1 Introduction

The question of *who should get what, and why* has once again a prominent spot on political agendas across Europe, making it relevant to study the social legitimacy of targeted welfare (van Oorschot & Roosma, 2017). Welfare deservingness is a central concept in this regard, capturing the extent to which target groups are seen as deserving of social welfare. It is a useful analytical lens for understanding public support for the social rights and obligations of target groups (see Laenen, 2020; Meuleman et al., 2017; van Oorschot, 2006; van Oorschot & Roosma, 2017). It helps explain why policies for some target groups are more generous than for others (Laenen, 2020). Scholars and policymakers can use recurring deservingness results to assess the legitimacy of current policies and anticipate public support for policy changes. The deservingness of benefit recipients is also linked to success in social policy implementation (Afonso & Papadopoulos, 2015).

While existing research provides valuable insights into how deservingness considerations inform welfare support decisions, most in-depth deservingness studies focus on adult perspectives. The lack of studies explicitly focusing on children and youth is a significant oversight. Given that experiences in the *impressionable years* influence welfare attitude stability and change across the lifespan (Neundorf & Soroka, 2018), understanding young people's views might offer foresight into future trends or generational shifts that could challenge existing social policy norms. Revisiting existing deservingness research through the lens of youth can also provide new insights into how *deservingness opinions* influence social welfare support, potentially refining welfare deservingness theory (van Oorschot et al., 2017). Lastly, the overview is societally relevant: the lack of consideration of young people's preferences in political and policy decision-making processes alongside low levels of political representation in parliaments and cabinets feeds into a vicious circle of youth political alienation (Stockemer & Sundström, 2022, 2023).

This study addresses this gap by investigating Swiss adolescents' (mean age=14.60) deservingness opinions and welfare attitudes from 14 cantons of the German-speaking part of Switzerland (N=1601). Besides studying more general deservingness opinions (e.g., primary target group rankings), a survey experiment is implemented varying several deservingness and welfare attitude items towards different unemployed groups (secondary target group level).

The study contributes to the existing literature in multiple ways. It is the first to directly investigate deservingness opinions, welfare attitudes and their relationship among underaged participants. Moreover, clearly distinguishing between deservingness opinions and welfare attitudes (see Laenen, 2020) generates more fine-grained insights into the mechanisms between deservingness and welfare support. Third, the comprehensive survey experiment allows for a revisit of established results (e.g., *migrant deservingness gap*) from a novel perspective and

enables causal inference about young people's views and preferences on different unemployment groups and benefits. Overall, while methodologically limited in predicting the future of the Swiss welfare state, the study demonstrates the importance of considering young people's views on *who should get what and why*.

The following sections first dig into young people's political preferences more generally before turning to their deservingness opinions and why they might differ from those of adults. This is followed by the empirical design of the study and a presentation and discussion of the results.

III.2 Political Preferences and the Impressionable Years

Previous research demonstrated that the *impressionable* years between childhood and adolescence¹² are a crucial phase for developing political preferences and orientations (Jennings, 1979, 1990; Neundorf & Smets, 2017; Sears & Brown, 2023). While attitudes can still change later in life,¹³ for example, due to important life-cycle events (e.g., parenthood: Jennings, 1979), some orientations like partisan predispositions and (implicit) racial attitudes tend to persist once established early in life (see Baron, 2015; Dražanová, 2022; Sears & Brown, 2023).

When looking at who and what influences young people in their *impressionable years*, parents are strong candidates (Jennings, 1984; Jennings et al., 2009; Jennings & Niemi, 1968, 1981; Rico & Jennings, 2016, but see: Beck & Jennings, 1991; Dinas, 2014). Research also points to schools, peers, media, political events, and the economic and institutional context (e.g., Neundorf et al., 2016; Neundorf & Soroka, 2018; Niemi & Junn, 1998; Sears & Valentino, 1997; Tedin, 1980; Wattenberg, 2020).

Whereas some of those agencies mostly affect individuals, broader shared context and experiences can lead to persisting *generational* or *cohort* effects, i.e., attitudinal differences “attributable to the common ‘imprinting’ of cohort members” (Markus, 1983, p. 718; also: Jennings, 1990; Niemi & Sobieszek, 1977). Research with young people in their *impressionable years* can thus offer a snapshot of the current *zeitgeist*, helping to anticipate and explain attitudinal change and stability in the future. For example, the existence of a welfare state during the *impressionable years* impacts how people's social policy attitudes change in response to economic hardships later in life (Neundorf & Soroka, 2018). However, disentangling the effects attributable to age, period, and cohorts remains a mathematical and conceptual problem (Bell, 2020; also: Niemi & Sobieszek, 1977). The statistical models require data over an extended period and strong theory-based assumptions, underscoring the relevance of a comprehensive understanding of young people's attitudes and the drivers shaping them.

¹² It is hard to pinpoint the exact span of the *impressionable* years. However, a consensus is that they likely begin much earlier than early adulthood (Neundorf & Smets, 2017). Studies show that children in primary school can already display signs of political knowledge, political orientations, and sensitivity to political events (e.g., Bartels & Jackman, 2014; Deth et al., 2011).

¹³ There is scholarly debate about attitude change and stability over the life course contrasting different perspectives: long-term stability after the *impressionable years*, lifelong openness and change due to life-cycle events (see Sears & Brown, 2023).

While there is extensive research on young people's political attitudes, studies on their welfare attitudes and their determinants are scarce (see Neundorf & Soroka, 2018, for a notable exception). This is also true for the growing body of research on welfare deservingness, which is identified as a crucial individual-level determinant of welfare attitudes in adults (Laenen, 2020; Meuleman et al., 2017; van Oorschot & Roosma, 2017). This study addresses this gap by focusing on young people's *deservingness opinions* and how they relate to their welfare attitudes. It is important to note, however, that the cross-sectional design of the study prohibits conclusively revealing generational or cohort effects. The following section will first examine existing deservingness research before turning to how and why young people's deservingness opinions might differ from those of adults and whether those differences might last.

III.3 Deservingness and Young People

III.3.1 Insights from Welfare Deservingness Research with Adults

Welfare deservingness describes the extent to which target groups are seen as worthy of social welfare. It is a strong predictor of support for the social rights and obligations of target groups (Laenen, 2020; van Oorschot & Roosma, 2017). Relying on deservingness considerations to decide on welfare support is a heuristic said to be rooted in our evolutionary past to distinguish the *lazy* from the *unlucky* in small-scale help relationships (Petersen, 2012, 2015; Petersen et al., 2011, 2012). Nowadays, it is suggested that people apply the broader CARIN criteria set to assess deservingness: *Control*, *Attitude*, *Reciprocity*, *Identity*, and *Need* (van Oorschot, 2000, 2006). The overall deservingness of target groups is determined by two kinds of deservingness opinions: *deservingness perceptions* (criteria-scorings) and *deservingness valuations* (criteria-weightings or importance) (Laenen, 2020). For example, in assessing the unemployed, *deservingness perceptions* include perceptions of whether the unemployed are responsible for being unemployed (*control*), are grateful for help (*attitude*), their past and expected future contributions (*reciprocity*), their level of *need*, and how 'close' the evaluator feels to the unemployed (*identity*). *Deservingness valuations* are about how important people deem the criteria. For example, one person might see *reciprocity* as most important, while another might think that the level of *need* is more crucial for determining help. Thus, even when people have similar *deservingness perceptions*, they may reach different overall judgments due to different prioritisations (*valuations*). Importantly, *deservingness perceptions* and *valuations* vary based on ideological and socio-demographic characteristics, the institutional, political and cultural context, and the target group and policy under consideration (Meuleman et al., 2020; van Oorschot & Roosma, 2017).

Interestingly, if people differentiate between the deservingness of target groups, they tend to end up with similar rankings (see Laenen & Meuleman, 2017; van Oorschot, 2006). The elderly, the sick and the disabled are regularly seen as most deserving, followed by families with

children. Groups perceived as less deserving are the unemployed, social assistance recipients, and migrants. Consistent with those rankings, policies are more generous and tied to less strict obligations for groups perceived as more deserving (Laenen, 2020). Moreover, people also differentiate between secondary target groups. For example, the unemployed are not perceived as a homogenous group (Buss, 2019; Larsen, 2008b; Naumann et al., 2020). Older unemployed are consistently seen as more deserving than younger unemployed, accompanied by support for stronger obligations and less generous benefits for younger unemployed (e.g., Buss, 2019; Larsen, 2008b; Naumann et al., 2020).

The deservingness rankings are explained through the deservingness criteria. For example, the elderly are perceived to have contributed more to society (*reciprocity*) than other target groups like the unemployed (van Oorschot, 2000). Similarly, older unemployed are assumed to score higher on *reciprocity* than younger unemployed; moreover, they are seen as less in *control* of their situation due to fewer chances of reemployment at the end of their careers (Buss, 2019; Dordoni & Argentero, 2015; Larsen, 2008b; Roosma & Jeene, 2017). Younger unemployed also tend to score worse on *attitude* ('ungrateful youth', Larsen, 2008b). Notably, previous research identified a *deservingness gap for migrants*; they are perceived as less deserving than non-migrants, regardless of similar contributions or behavioral missteps (Kootstra, 2016, 2017; Reeskens & van der Meer, 2019). The gap is argued to be *inevitable* as it persists even under highly favorable behavior, like showing a strong effort to reintegrate into the labor market (Reeskens & van der Meer, 2019; also: Gilens, 1999).

III.3.2 Hypotheses

It is unclear whether young people also rely on deservingness considerations to inform their welfare support decisions, and if they do, whether their *deservingness opinions* differ from those of adults.

Young People's Use of the Deservingness Heuristic

Starting with the first question, if distinguishing between more and less deserving members of society to determine help is indeed rooted in our evolutionary past (Petersen, 2012, 2015; Petersen et al., 2012), young people should also use deservingness considerations to inform welfare support decisions. This should be the case for attitudes regarding social rights and obligations, as the causal logic connecting *deservingness opinions* with attitudes on social rights also seems to apply to social obligations, effectively constituting "two sides of the same coin" (Laenen & Meuleman, 2019; also: Roosma & Jeene, 2017). Moreover, scholars demonstrated that deservingness holds explanatory value when accounting for other important explanatory frameworks like performance evaluations, self-interest, political ideology, and values (e.g., Cook & Barrett, 1992; Gilens, 1999; Laenen, 2020).

H1. Young people will rely on deservingness considerations to determine welfare support. This will apply to attitudes on social rights (H1a) and obligations (H1b).

Deservingness Opinions of Young People

Turning to the second question, young people will likely assess the overall deservingness of some target groups differently than adults. Differences may arise from variations in *deservingness perceptions* (criteria-scorings), *valuations* (criteria-weightings/ importance), or a combination of the two. However, the long-term implications of differences depend on their stability: Will they fade over time due to aging or life-cycle events, or do they represent (early) signs of generational change? Both are plausible since *perceptions* and *valuations* are influenced by individual socio-demographic characteristics but also by the broader cultural, political and economic context (see Laenen, 2020; van Oorschot & Roosma, 2017).

One primary target group that young people may view differently is the elderly. Firstly, those yet to enter the labor market might place less emphasis on *reciprocity*, a criterion typically contributing to the picture of a highly deserving elderly due to assumptions of past contributions (van Oorschot, 2000). Additionally, contextual changes such as demographic aging may lead to re-evaluations of the elderly through mechanisms of age-based self-interest (Kweon & Choi, 2021, but see Goerres et al., 2020). For instance, relative inequalities across generations could alter young people's perceptions of the elderly as a group in financial *need* (see van Oorschot, 2000, 2006). The "generational contract"¹⁴ (Svallfors et al., 2012, p. 159) embedded within the welfare state becomes progressively less rewarding in aging societies, potentially causing young people to view current old age support as relatively good compared to what they can expect. Similar effects might be caused by the increasingly challenging housing market for younger generations compared to older generations ('generation rent': Hoolachan et al., 2017; McKee, 2012). Whereas these reasons suggest a decrease in the elderly's deservingness, this should not be the case for other highly deserving groups like the disabled or the sick. After all, young people should also adhere to the 'built-in bias' to view sickness as randomly caused and, hence, the sick as highly deserving (Jensen & Petersen, 2017, p. 71).

H2. Young people will perceive the elderly as less deserving, ranking them below other target groups usually perceived as highly deserving, like the sick and disabled.

While the elderly could be seen as less deserving by young people, other primary target groups like the unemployed and social assistance recipients could be seen as more deserving. These groups usually score poorly on *reciprocity*, especially on perceptions that they do not want to find a job (Buffel & Van de Velde, 2019; Furåker & Blomsterberg, 2003; Hills, 2002).

¹⁴ The generational contract is an implicit agreement where the working population supports the (very) young and old through financial mechanisms, expecting similar support in their old age. It inherently carries the potential for intergenerational conflicts, particularly if old-age support is perceived as burdensome or when younger generations have doubts about the sustainability of the old-age policies for their future (Svallfors, 2008; for a systematic literature review: Zechner & Sihto, 2023).

Simultaneously, the unemployed and particularly social assistance recipients are perceived to have high financial *needs* (Blomberg et al., 2017; Larsen, 2006). If reciprocity is less important among youth enrolled in schools, the need-based assessment could be more important for the overall judgment, lifting the deservingness 'floor':

H3. Young people will see social assistance recipients as more deserving, not ranking them below the unemployed, unlike in previous studies conducted on the general population.

Differences could also exist for assessments of secondary target groups like younger and older unemployed. As described above, adult-centered studies paint a rather harsh picture of the younger unemployed compared to the older unemployed. It is unclear to what extent this would be similar among young people. On the one hand, young individuals might feel *closer* and thus more sympathetic to younger unemployed simply from an age standpoint. Moreover, self-interest considerations (see Sherif, 1988) could come into play, considering that young people often face unstable employment at the beginning of their careers (e.g., Hardgrove et al., 2015; Stuth & Jahn, 2020). At the same time, this logic might not apply to young people without labor market experience who have not faced precarious employment. Furthermore, this may be even less likely in countries with low (youth) unemployment, as this reduces the likelihood of contact with people who had difficulties re-entering the labor market. Young people then might not feel close to any group of unemployed people, especially if they perceive themselves as not at risk of future unemployment. While young people's judgments could then likely mirror those of adults, the deservingness differences between older and younger unemployed may still be slightly less pronounced among youth when assuming less emphasis on the *reciprocity* criterion:

H4. Young people will perceive older unemployed as more deserving than younger unemployed.

Lastly, it is worth turning to unemployed migrants, who are regularly perceived as the least deserving target group. Besides *identity*, research points to *reciprocity* and *control* as key criteria to explain this position (Reeskens & van der Meer, 2019; also: Kootstra, 2016). (Unemployed) migrants are usually perceived to score low on *reciprocity* (Reeskens & van der Meer, 2019; Reeskens & van Oorschot, 2012), both on future contributions (e.g., migrants have to face incomplete employment trajectories more often than non-migrants, see Kogan, 2006) and past contributions (more limited time to contribute to the country of destination). Putting less weight on *reciprocity* might thus shift focus towards other criteria like *identity*. For *identity*, an interesting contrast emerges: While solidarity decreases with cultural distance (Hainmueller & Hopkins, 2015), younger people are often portrayed as more tolerant and open to migration (e.g., Norris and Inglehart, 2019). Thus, they may adopt a *broader* understanding of solidarity and *identity*. At the same time, these trends are not necessarily attributable to *age per se*.

Instead, scholars argue for cohort effects (Gorodzeisky & Semyonov, 2018; Schotte & Winkler, 2018), influenced by the political and societal climate and the presence of anti-immigration sentiments during the *impressionable years* (Jeannet & Dražanová, 2019; McLaren & Paterson, 2020). The implications are intriguing: if openness and solidarity towards migrants are not something young people will ‘outgrow’, the *inevitable deservingness gap* may be resolved over time by upcoming generations. However, if context matters, this should only be the case in countries where migration is not a divisive topic. Consequently, in places where migration is hotly debated, the *inevitable deservingness gap* may not resolve over time but could be fuelled by formative experiences during childhood and adolescence. For the Swiss context investigated in this study, hypothesis 5 can thus be formulated as follows:

H5. To the extent that migration is hotly debated in Switzerland, young people are expected to perceive unemployed migrants as less deserving than unemployed non-migrants.

III.4 Methods

III.4.1 Data Collection and Sample

This study employs a cross-sectional survey among secondary school students in German-speaking Switzerland. 1711 secondary students from all school levels at the end of obligatory schooling (year 8/9) across 14 cantons were surveyed. The final analytical sample comprises 1601 participants (mean age: 14.60).¹⁵ Two waves of data collection occurred between May and July 2022 and January and May 2023.¹⁶ The survey was conducted online and completed in class (average completion time ~22 minutes).

The sampling strategy involved systematically contacting schools, whereby all eligible schools were contacted in smaller cantons and a probability-proportional-to-size sampling (see Rust, 2014) was used in bigger cantons.¹⁷ Full class participation was sought to reduce participation bias and more accurately represent the population. Permission to systematically contact schools was granted through the respective educational authorities and departments. Participation of schools, classes, and students was voluntary and required the (age-appropriate) information and consent of the involved principals, teachers, and students. In addition, legal guardians were informed in writing about the participation. The students could withdraw from the study at any time (before, during or after participation) without negative consequences. The practices adopted for data confidentiality and security adhere strictly to the cantonal and

¹⁵ Students aborting the questionnaire before reaching all deservingness and welfare attitudes questions were excluded from the sample. This was equivalent to having filled out at least 4/5 of the questionnaire (fully completed questionnaire N=1577).

¹⁶ The sample includes students from all five geographical regions of German-speaking Switzerland: Zurich, Espace Midland (Berne, Fribourg, Solothurn); Northwestern Switzerland (Argovia); Eastern Switzerland (Glarus, Appenzell Outer Rhodes., St. Gall, Grisons); Central Switzerland (Lucerne, Obwald, Nidwald, Zug, Uri). The first round was only conducted in Argovia, Berne, Lucerne, St. Gall, and Zurich. Additional demographic information on the sample is detailed in Appendix A7.

¹⁷ Schools for participation were chosen from strata based on the canton, school year and school type.

federal data protection regulations, and the ethical and data protection approach was reviewed and approved by educational authorities.

III.4.2 Swiss Context

Investigating youth in German-speaking Switzerland in 8th and 9th grade represents a suitable sample for the outlined hypotheses. The participants are still enrolled in mandatory schooling, which might cause a lower emphasis on *reciprocity*, as assumed in *H2*, *H3*, *H4*, and *H5*. Additionally, many of the contextual factors discussed earlier are present in Switzerland, such as stable and low unemployment rates (*H4*), difficulties of homeownership for younger generations (Jaberg, 2022), and strong demographic aging (BFS, 2023b) (*H2*). Moreover, Switzerland is an ideal case study to investigate the contrast of a supposedly more immigration-friendly youth in an immigration-sceptic political and societal climate (*H5*). In Switzerland, (EU-)migration is a politically and societally salient topic. Over the last decade, several referendums have been held on limiting migration, supported by the leading Swiss People's Party (SVP). The most recent referendum took place in September 2020, aiming at curbing EU migration. These votes were accompanied by media discourses and narratives about an endangered national identity and a weakened international position, often invoking populist rhetoric around internal societal divide and migration (Dolea et al., 2021).

III.4.3 Thematic Focus

The survey focuses primarily on *deservingness opinions* and welfare attitudes on the unemployed and unemployment benefits, complemented by more general questions like primary target group rankings. Focusing on the unemployed is justified insofar as unemployment is a more prominent social risk for youth than old age or sickness. Moreover, *deservingness opinions* on the unemployed are particularly relevant in the Swiss context. Recent policy trends indicate that the enactment of retrenching reforms has predominantly been feasible when directed at groups perceived as less deserving (e.g., Afonso & Papadopoulos, 2015).

III.4.4 Survey Item Development

Where possible, the survey items were constructed using validated items or slight variations thereof to ensure maximum comprehensibility among the respondents. Rigorous pretesting was conducted to ensure the questionnaire was suitable for the envisaged population. This included a cognitive pretest using a 'think-aloud' method, allowing to identify and revise questions and terms that could be unclear or misunderstood (Lenzner et al., 2015). This was followed by an additional pretest with four classes (year 8/9) in the canton of Bern (only baseline, N=74). After completion, feedback was sought from the students regarding any difficulties in comprehension or functionality. No issues were raised with the deservingness and welfare

attitudes items in the second pretest, which is why the results of the second pretest were incorporated into the final analytical sample.¹⁸

III.4.5 Survey Experiment

Besides asking all participants more general questions on deservingness and welfare attitudes, a survey experiment was implemented to explore how deservingness opinions and welfare attitudes differ towards different unemployed groups (secondary target group level). For this, participants were randomly assigned to one of five conditions at the beginning of the survey: general unemployed (control, N=395), young unemployed under 30 (N=309), older unemployed over 55 (N=292), unemployed with Swiss citizenship (N=287) and unemployed with EU citizenship living in Switzerland (N=316). For example, a participant in experimental condition two (young unemployed under 30) received questions about the group of young unemployed but not about the other unemployed groups. Information about which items were varied and the wording is detailed in the next section, Table 1, and Appendix A2.

The underlying rationale for the exact definitions of the conditions was based on theoretical considerations and the current institutional realities in Swiss unemployment insurance benefits (*Arbeitslosenentschädigung*). This system differentiates between younger and older unemployed, for example, in terms of benefit duration and what is defined as suitable work for these groups. On the contrary, Swiss and EU unemployed living in Switzerland are covered by the same rules once they meet the eligibility criteria. Hence, while a direct examination of policy feedback mechanisms (e.g., Laenen, 2018; Larsen, 2006, 2008a) is beyond the scope of this article, the survey experiment design allows speculative insights into whether policy differences are mirrored in young peoples' deservingness opinions and welfare attitudes.

III.4.6 Survey Items

The survey comprises several measurements of deservingness and welfare attitudes, thereby following calls for clearly distinguishing between *deservingness opinions* and *welfare support* (Laenen, 2020). Table 1 provides an overview of all deservingness and welfare attitude items used in the paper (for detailed wording and source of questions, see Appendix A2).

¹⁸ To ensure the robustness of the results, all analyses were also run on the data without the pretest sample. The results practically mirror those presented in the paper. The results can be obtained by contacting the corresponding author.

Table III.1 Deservingness and Welfare Attitude Items.

Deservingness items					
<i>Primary Target Group level</i>	<i>Abbr.</i>	<i>Valid N</i>	<i>Experim. Modified</i>	<i>Sample</i>	<i>Answers</i>
Overall Deservingness:	<i>OD_{prim}</i>		No (items are the same for all participants)	All cantons	1 to 5 (not deserving at all; fully deserving)
· Elderly		1580			
· Sick		1581			
· Disabled		1580			
· Families with children		1580			
· Unemployed		1585			
· Social assistance recipients		1575			
<i>Secondary target group level (groups of unemployed)</i>	<i>Abbr.</i>	<i>Valid N</i>	<i>Experim. Modified</i>	<i>Sample</i>	<i>Answers</i>
Deservingness criteria for secondary target groups (groups of unemployed):	<i>DC</i>		Yes (unemployed group is modified; one condition per participant):	All cantons	1 to 5 (do not agree at all; fully agree)
· Control ^R		282-394			
· Attitude ^R		284-395	I: Control (Unemployed)		
· Reciprocity past		282-394	II: Younger Unemployed		
· Reciprocity future ^R		280-394	III: Older Unemployed		
· Identity		282-393	IV: Swiss Unemployed		
· Need		282-394	V: EU Unemployed		
Overall Deservingness unemployed groups	<i>OD_{sec}</i>	286-394	Yes	All cantons	1 to 5 (not deserving at all; fully deserving)
<i>Unrelated to target groups</i>	<i>Abbr.</i>	<i>Valid N</i>	<i>Experim. Modified</i>	<i>Sample</i>	<i>Answers</i>
General deservingness principles	<i>GD</i>		No	2nd data round	1 to 5 (do not agree at all; fully agree)
· Control		540			
· Attitude		539			
· Reciprocity		537			
· Identity		540			
· Need		539			
Welfare attitude items					
<i>Secondary target group level (groups of unemployed)</i>	<i>Abbr.</i>	<i>Valid N</i>	<i>Experim. Modified</i>	<i>Sample</i>	<i>Answers</i>
Role of government:			Yes	All cantons	0 to 10 (0 no responsibility; 10 full responsibility)
· Living standard unemployed	<i>RgLS</i>	284-392			
· Job unemployed	<i>RgJob</i>	280-390			
Generosity:			Yes	All cantons	· 0-100 (scale) · open answer
· Replacement rate	<i>RR</i>	283-394			
· Duration of unemployment benefits	<i>Dur</i>	270-361			
Obligations (benefit cuts for job refusal):			Yes	All cantons	1 to 4 (lose all benefits; lose half; lose small part; keep all)
· don't want to move ^R	<i>ObMove</i>	280-390			
· take a worse paid job ^R	<i>ObPay</i>	280-392			
· take a job requiring a lower educational level ^R	<i>ObEdu</i>	275-390			
Social investment: cuts in unemployment benefits to increase spending on training/ education	<i>SI</i>	281-391	Yes	All cantons	1 to 4 (strongly disagree; strongly agree)

Note. R = reversed to ensure consistency (i.e., higher scores indicate more deserving). Bullet points represent single questions or sub-questions. See Appendix A1 for more details. Abbr. = Abbreviation.

Deservingness Items

Deservingness was measured for primary and secondary target groups (unemployed groups). Starting with the unemployed groups (secondary target group level), deservingness was assessed via the public image approach¹⁹ (Meuleman et al., 2020), with six single items for the CARIN criteria (*DC*).²⁰ Additionally, one item captured the overall deservingness of the specific group (*OD_{sec}*). As each respondent was assigned to one unemployed group, they received

¹⁹ The public image approach measures how people evaluate target groups regarding the single deservingness criteria (Meuleman et al., 2020, pp. 4–5).

²⁰ *Reciprocity* was measured with two items, one for past and one for future contributions (see Heuer & Zimmermann, 2020; Knotz et al., 2022; Laenen, 2020).

only items for their group. The CARIN criteria (*DC*) for the experimental conditions were operationalized as follows:

Below are a few statements about [unemployed people// younger unemployed people. By younger unemployed people, we mean unemployed people who are under 30 years old// older unemployed people. By older unemployed people, we mean unemployed people who are over 55 years old// unemployed people with a Swiss passport// people who have moved to Switzerland from a country in the European Union (EU) and are now unemployed.]. For each statement, indicate how much you agree or do not agree with it.

Attitude	1)	Most [unemployed people// younger unemployed (under 30)// older unemployed (over 55)// unemployed with a Swiss passport// unemployed with a passport from an EU country] are not grateful enough for government support and do not appreciate it enough.
Identity	2)	I personally sympathise with the fate of [experimental group].
Reciprocity Future	3)	Most [exp. group] don't really try to find a job.
Reciprocity Past	4)	Most [exp. group] have already contributed to society before they became unemployed.
Control	5)	Most [exp. group] are to blame themselves for being unemployed.
Need	6)	Most [exp. group] live in immediate need (e.g., financial).

Answer options ranged from "Do not agree at all" (1) to "Fully agree" (5).

Overall deservingness of the unemployed groups (OD_{sec}) was assessed with a single item: "To what extent do most [experimental group] deserve to receive social welfare from the government?". Answer options ranged from "Do not deserve it at all" (1) to "Fully deserve it" (5).

Items on the deservingness of primary target groups were not experimentally manipulated and answered by all participants. Deservingness was measured by asking for the overall deservingness (OD_{prim}) of the elderly, sick, disabled, families with children, unemployed and social assistance recipients ("For each of the following groups, indicate the extent to which they deserve to receive social welfare from the government?"). Answers ranged from "Do not deserve it at all" (1) to "Fully deserve it" (5). The control group (general unemployed) did not evaluate the unemployed in OD_{prim} since they answered this question in OD_{sec} . Moreover, migrants were not included in OD_{prim} given that a migrant condition was included in *DC* and OD_{sec} , and to minimise social desirability bias in the ranking. However, it cannot be ruled out that social desirability influenced responses towards other stigmatised groups, such as social assistance recipients.

In the second survey round, an item was introduced measuring general deservingness principles (*GD*), i.e., the importance of deservingness criteria for receiving social welfare without reference to target groups. The items are strongly inspired by Meuleman et al. (2020), except for the identity criterion. This is because the identity items in the Meuleman et al. study are operationalised exclusively concerning migration, which 'risks missing other important dimensions of identity' (Meuleman et al., 2020, p. 11). To address this limitation, this study operationalises the identity criterion via various aspects of closeness, such as shared country of birth, kinship, and cultural affinity, which aligns more closely with the original definition of the criterion (van Oorschot, 2000, 2006; refer to the appendix for detailed wording):

Now we are talking more generally about when people should receive social benefits and services. By social benefits and services, we mean things like pensions, health care, unemployment benefits, or social assistance. Indicate how much you agree or disagree with the following sentences: People should receive social benefits and services when they ...

Control	1)	have not caused their problems.
Attitude	2)	are grateful for the help.
Reciprocity	3)	have contributed or will contribute to public prosperity in their life.
Identity	4)	are close to me (e.g., same country of birth, kinship, culture, etc.).
Need	5)	are in real need (e.g., financially).

Answer options ranged from “Do not agree at all” (1) to “Fully agree” (5).

Welfare Attitude Items

The welfare attitude items focus on unemployment-related policies, and the role of the government (see Table 1). The items mainly stem from the welfare attitude module of the European Social Survey (ESS).²¹ Additionally, three items were developed on the maximum unemployment benefit duration (*Dur*),²² the maximum unemployment benefit replacement rate (*RR*), and benefit cuts in case of job refusal because the unemployed person does not want to move (*ObMove*). All welfare attitude items are experimentally modified, similarly to *DC* and *OD_{sec}*. For example, the role of government items Living Standard (*RgLS*) and Job (*RgJob*) read:

And to what extent should it be the government’s responsibility to ...		
Living Standard	1)	...ensure a reasonable standard of living for [<i>unemployed people// younger unemployed (under 30)// older unemployed (over 55)// unemployed with a Swiss passport// unemployed with a passport from an EU country</i>]?
Job	2)	... ensure a job for [<i>experimental group</i>]?

Answer options ranged from “No responsibility at all” (0) to “Full responsibility” (10).

The welfare attitude items measure attitudes towards social rights (*RgLS*, *RgJob*, *Dur*, *RR*) and social obligations (*ObMove*, *ObEdu*, *OBPay*, *SI*; see table 1) to account for the multidimensionality of welfare attitudes (Roosma et al., 2013, 2014).

Control Items

Lastly, data was collected on the following control variables: age, gender, welfare state performance (living standard of unemployed, experimentally modified, scale 0-10), political ideology (left-right scale),²³ egalitarian values (5-point Likert item), nationality (Swiss), nationality (EU), self-assessment of future job prospects (5 point scale from very unlikely to very likely), highest education of parents, self-assessment of the family’s position in society (11-point numerical scale), and contact to unemployed people. All those variables relate to important explanatory frameworks in the literature on deservingness and welfare attitudes: self-interest, political ideology, political values and performance evaluations (see Laenen, 2020).

²¹ In some instances, the original ESS wording was slightly changed to increase comprehensibility among the participants.

²² Benefit duration was asked as an open question with a hint to provide answers in months. Responses were excluded if the responses could not be coded (e.g., “twice a month”), indicated indefinite duration (e.g., “forever”), or for durations over 13 years due to the next data point being at over 41 years (outliers). These exclusions led to 76 cases being omitted but did not yield statistically significant differences across conditions. This could result in a slight underestimation of the population mean.

²³ The inclusion of the left-right scale was deemed suitable for the young participants (see also Rico & Jennings, 2016). This choice is confirmed in the analyses. For example, the weighted sample mean (4.71) is pretty much consistent with the Swiss ESS sample mean (5.03), and the left-right variable performs as expected in the regression analyses.

III.4.7 Data Analysis Strategy

The article generates new insights by revisiting existing deservingness and welfare attitude results from a so far unknown young perspective. This includes the examination of the *deservingness rankings of primary target groups (H2, H3)*, the comparison of *older and younger unemployed (H4)*, the *inevitable deservingness gap (H5)* and the extent to which *deservingness opinions predict welfare attitudes among young people (H1)*. *H2* and *H3* will be tested by describing the primary target group deservingness rankings (OD_{prim}), whereby the results of the general deservingness principles (*GD*) are referred to for an interpretation of the results. *H4* and *H5* require an examination of the survey experiment. Specifically, the goal is to compare 1) the four experimental conditions to the baseline, 2) the older and younger conditions and 3) the Swiss and EU conditions for differences in deservingness opinions (OD_{sec} and *DC*) and welfare attitudes. Moreover, by contrasting the significant differences in deservingness between the unemployed groups with the results of the welfare attitude items, it is possible to draw initial conclusions about *H1*. Additionally, *H1* will be analysed by investigating the relationship between deservingness opinions (OD_{sec} and *DC*) and welfare attitudes via linear and ordered logit regression models considering important control variables. Two baseline models were considered for the regression models: one for overall deservingness (OD_{sec}) and one for the CARIN criteria (*DC*). Next, both baseline models were extended by adding the covariates described above.

To increase the robustness of results, all analyses were performed with unweighted and weighted data, and robust standard errors were used where possible (Solon et al., 2015). Additionally, in the regression analyses, multiple imputations was used to impute missing values, as it offers strong advantages over list- or pairwise deletion (Jakobsen et al., 2017; Rubin, 2004; van Buuren, 2018; van Ginkel et al., 2020; Woods et al., 2023). More details on the use of weights (e.g., raking weights calculation; see DeBell, 2018; DeBell & Krosnick, 2009) and the multiple imputation process are presented in Appendix A5 and A6.

Except for the regression analyses, all estimates, standard errors, and p-values in the following text are the ones from the weighted analyses. For the regressions, the following text and tables report the pooled imputed weighted regressions results as this approach is superior to relying only on multiple imputations (Quartagno et al., 2020). The results of all regression models (unweighted 1a-b, weighted 2a-b, weighted and imputed 3a-c) are detailed in Appendix A3 and A4. Overall, there is high consistency of results independent of the model specification of the baseline models (unweighted 1a, weighted 2a, weighted and imputed 3a) as well as the full

models (unweighted 1b, weighted 2b, weighted and imputed 3b²⁴), which speaks for the robustness of the results.

III.5 Results

Table A1 (Appendix) displays summary statistics on the variables used in this paper. A1 also displays reference points (e.g., means and proportions) to the most recent ESS Swiss general population samples where possible. The results section follows the outline presented in the data analysis strategy section. First, results on the overall deservingness of primary target groups (OD_{prim}) are presented ($H2$, $H3$). This is followed by examining young people's evaluations of different unemployed groups in terms of overall deservingness (OD_{sec}) and deservingness criteria (DC) ($H4$, $H5$). Lastly, the section investigates to what extent *deservingness opinions* on the unemployed groups predict welfare support for unemployment-related policies ($H1$). For reasons of clarity, one subsection will focus on attitudes toward social rights ($H1a$), and one will focus on social obligations ($H1b$).

III.5.1 Overall Deservingness of Primary Target Groups ($H2$, $H3$)

Figure 1 displays an overview of the overall deservingness of different primary target groups (OD_{prim} , P1) and the general deservingness principles (GD , P2). P1 shows that deservingness considerations among Swiss youth are more about *relative* than *absolute deservingness* (Laenen, 2020), as no group averaged lower than 3 (mean range: 3.46 to 4.28 on a 5-point scale; 3 = undecided whether deserving or not deserving). This mostly mirrors patterns among adult samples (e.g., van Oorschot, 2006)

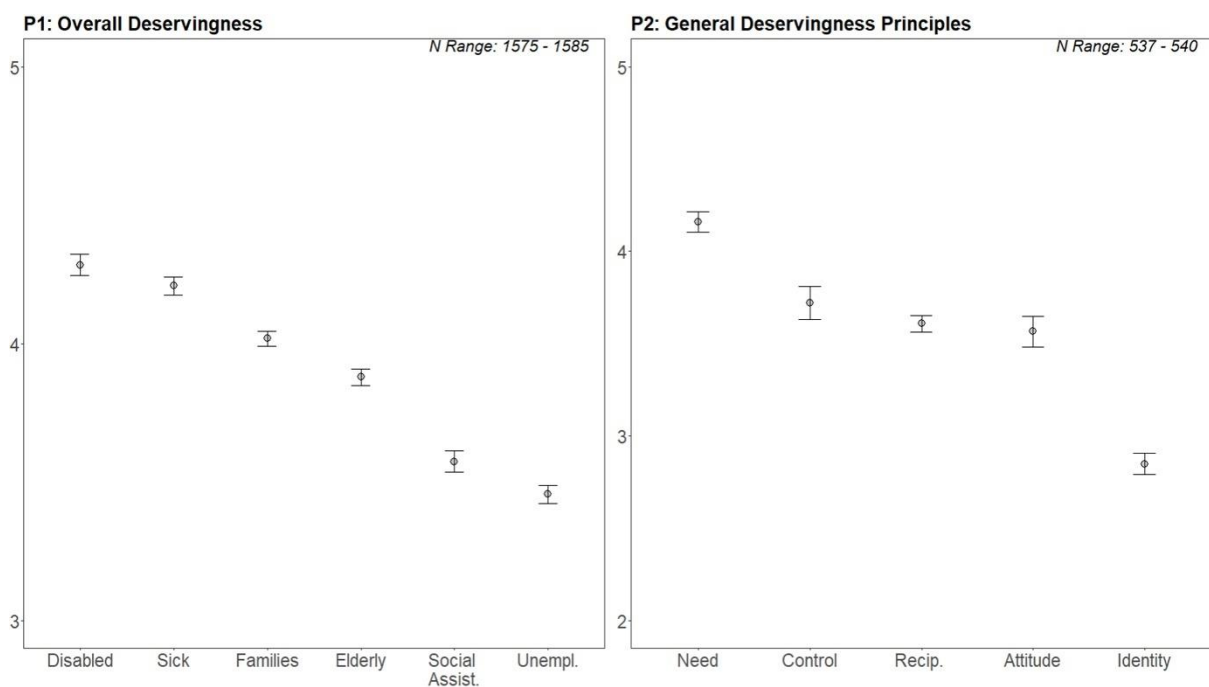
Clearer deviations from previous findings with adults are visible for the overall deservingness rank order in P1 (see Laenen & Meuleman, 2017). On an aggregate level, the disabled (mean=4.28, SE=0.04) and sick (mean=4.21, SE=0.03) are seen as most deserving, followed by families with kids (mean=4.02, SE=0.03), the elderly (mean=3.88, SE=0.03), social assistance recipients (mean=3.57, SE=0.04), and lastly, the unemployed (mean=3.46, SE=0.03). Particularly noteworthy are the relatively lower deservingness of the elderly compared to the sick and disabled ($H2$) and the reversed positions of the unemployed and social assistance recipients ($H3$). These results support $H2$ and $H3$, suggesting that *reciprocity* could be less relevant for adolescents who have not yet entered the labor market.

Backing for this is visible in P2, displaying the importance of the general deservingness principles (GD). Contrary to previous claims that *control* and *reciprocity* are the most important criteria when evaluating the deservingness of target groups (e.g., Larsen, 2006; Petersen, 2012; van Oorschot and Roosma, 2017; also: de Swaan, 1988), this seems not to be the case here, at least when asked in the form of general deservingness principle. Instead, *need* has a higher

²⁴ Additionally, a model that included the highest socioeconomic status of parents (Hisei-08) was run (3c). However, due to a rather large Hisei missing rate (42.7%), it was only included as another specification of a full weighted & imputed model (3c) and not in the unimputed analyses to avoid introducing bias in the estimations (1b and 2b). For more details and results, see A3/A4.

mean (mean=4.16, SE=0.06) compared to *control* (mean=3.72, SE=0.09) and *reciprocity* (mean=3.61, SE=0.05). This suggests that Swiss adolescents might prioritize need-based assessments in deservingness considerations (see Cook and Barrett, 1992; Meuleman et al., 2020), which would explain why social assistance recipients are seen as more deserving than the unemployed. Interestingly, the *identity* criterion – operationalized via closeness (country of birth, kinship, culture) – is the least important criterion (mean=2.85, SE=0.06). While this stands in contrast to previous studies highlighting the important role of *identity* (e.g., Reeskens & van der Meer, 2019), social desirability might influence the result.

Figure III.1 Overall Primary Target Group Deservingness and General Deservingness Principles.



III.5.2 Secondary Target Group Level: Deservingness of Different Groups of Unemployed (H4, H5)

This section evaluates the experimental items on the overall deservingness (OD_{sec}) and deservingness criteria (DC) of the different unemployed groups. First, the experimental groups will be compared to the baseline condition (unemployed in general) before comparing older and younger unemployed ($H4$) and Swiss and EU unemployed ($H5$). Figure 2 displays the results of OD_{sec} and DC by condition. P1 shows the means, and P2 the answer proportions (in percentage) for these questions. The overall deservingness for the different unemployed groups is not very high (OD_{sec} mean range: 3.45 to 3.62). However, it still could display too rosy a picture when not considering the individual CARIN criteria assessments (DC). This is particularly eminent in P2, revealing that only a small share of respondents (5-8%) saw either of the unemployed groups as not deserving at all (=1) or not deserving (=2), whereas a far more substantial share of participants assessed very low (=1) or low scorings (=2) on the different criteria (e.g., *need*: 36-46%, *control*: 21-42%). Accordingly, while overall deservingness appears largely consistent across the unemployed groups, criteria-based measurements can

reveal a more fine-grained and perhaps more critical portrayal of deservingness. The lower sensitivity of OD_{sec} is also evident for the mean scores (P1), as there are no statistically significant differences in overall deservingness when comparing the experimental conditions to the baseline condition (Wald Test: $F=2.13$, $p=0.081$)²⁵. Again, a more differentiated picture is revealed for the criteria-based assessment (DC) as there are significant differences between the experimental conditions and the baseline condition for the *control* ($F=10.97$; $p<0.001$), *attitude* ($F=4.67$; $p=0.002$), *reciprocity past* ($F=18.35$; $p<0.001$), *reciprocity future* ($F=3.53$, $p=0.01$) and *identity* criterion ($F=4.05$; $p=0.004$). Differences are smallest and not significant for the *need* criterion ($F=2.14$; $p=0.08$). Interesting findings regarding the *identity* criterion are visible, measured by sympathy for the fate of the specific target group. The young and Swiss conditions score lowest in the aggregate mean, although they are 'closest' to the average respondent.

Older and Younger Unemployed

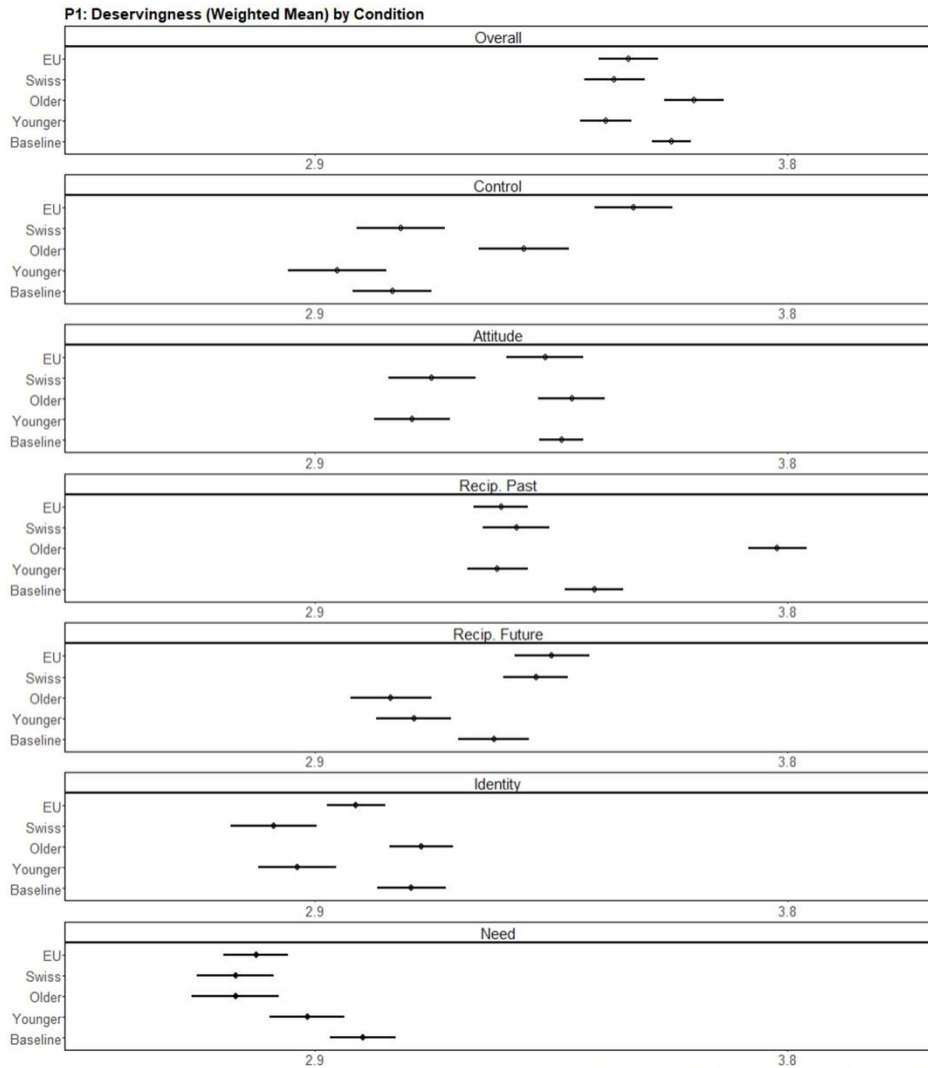
When comparing how young people see older and younger unemployed, the results largely mirror previous adult-focused studies. Older unemployed are seen as significantly more deserving than younger unemployed in terms of overall deservingness (OD_{sec} ; $T=2.20$, $p=0.030$), supporting $H4$. The criteria-based assessments (DC) reveal that those differences are driven by significant differences in *control* ($T=2.721$, $p=0.008$), *attitude* ($T=3.212$, $p=0.002$), *reciprocity past* ($T=6.131$, $p<0.001$) and *identity* ($T=3.475$, $p<0.001$). The biggest difference is visible for *reciprocity past*, i.e., older unemployed are seen as having contributed significantly more to society than younger unemployed. In line with the expectations formulated in the hypothesis section, no significant differences are visible for the *need* criterion.

EU and Swiss Unemployed

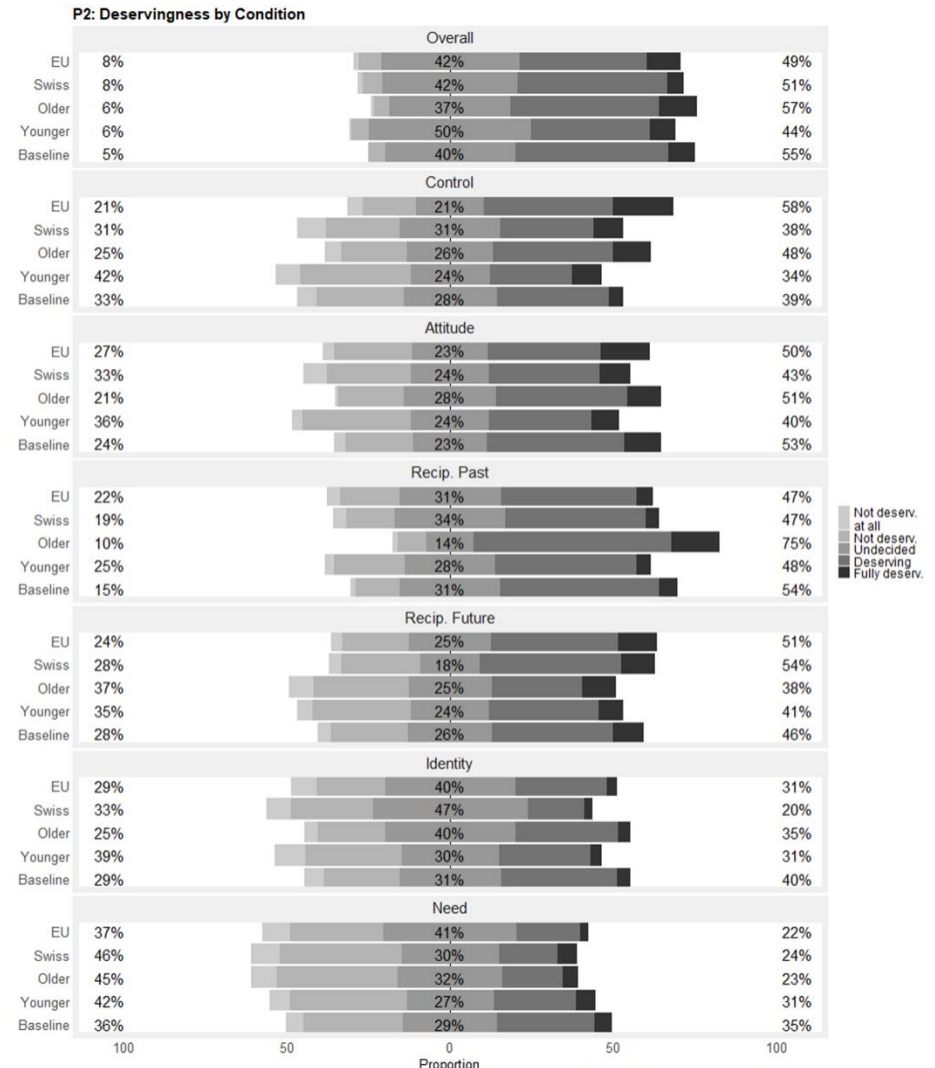
The biggest deviation from previous literature with adults can be found in the comparison of Swiss and EU unemployed living in Switzerland, as no *migrant deservingness penalty* is visible. The analysis displays no significant difference regarding the overall deservingness between the EU and Swiss conditions (OD_{sec} ; $T=0.341$, $p=0.734$), starkly contradicting $H5$. On the contrary, when evaluating the CARIN criteria (DC), the EU unemployed even score significantly higher regarding the *control* criterion ($T=4.685$, $p<0.001$). This means that Swiss youth perceive EU unemployed living in Switzerland as less responsible for being unemployed than the Swiss unemployed. Moreover, although not statistically significant, a similar trend is observable for the *attitude* criterion ($T=1.934$, $p=0.056$), i.e., EU unemployed are perceived to be more grateful for received help.

²⁵ Mean differences between the experimental and baseline conditions were tested with Wald tests based on weighted general linear models (deservingness ~ condition) using the baseline as a reference category. The p-level was adjusted in the post-hoc tests to account for multiple pairwise comparisons (baseline–young/baseline–older/baseline–Swiss/baseline–EU; see false discovery rate: Benjamini & Hochberg, 1995).

Figure III.2 Panel: Overall and Criteria-Based Deservingness.



N range per condition: 280 to 395. See table A1 for details.



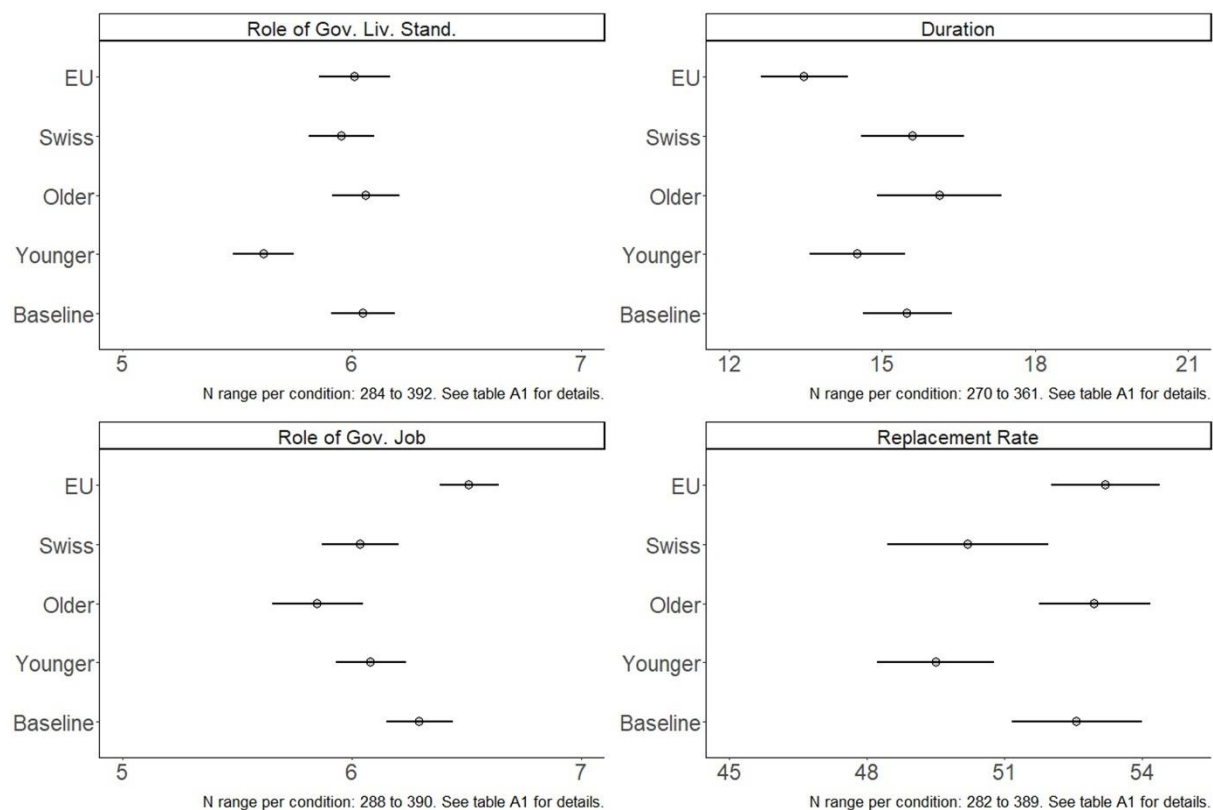
N range per condition: 280 to 395. See table A1 for details.

Note. The overall deservingness scores are from 1 = Not deserving to 5 = fully deserving. For the criteria, the survey measures agreement to statements indicating the degree of deservingness.

III.5.3 Deservingness as a Predictor of Welfare Attitudes on Social Rights (H1a)

This section examines whether young people rely on deservingness considerations to inform their welfare attitudes on social rights (*H1a*). Figure 3 presents a panel of welfare attitude items on the role of government in providing a decent living standard for the unemployed groups (*RgLS*), in providing a job (*RgJob*), the maximum unemployment benefit duration (*Dur*) and the maximum unemployment benefit replacement rate (*RR*). While it should be somehow the government's responsibility to provide jobs and a decent living standard for the different unemployed groups (mean scores of *RgLS*, *RgJob* > 5), it is not a top priority. Moreover, the maximum duration and replacement rate are clearly below current norms (24 months, 70/80%).

Figure III.3 Attitudes on Social Rights (Secondary Target Group Level: Unemployed).



Interestingly, the significant differences in deservingness presented in the last section are largely reflected in the significant differences in the welfare attitude items, providing preliminary support for *H1a*. In line with perceptions that older unemployed are significantly more deserving than younger unemployed, the government is seen as significantly more responsible for providing a decent living standard for older unemployed than younger unemployed (*RgLS*; $T=2.253$, $p=0.027$), and older unemployed should receive significantly higher replacement rates (*RR*; $T=1.988$, $p=0.0497$). Attitudes towards the EU/Swiss comparison also align with the significant differences in deservingness but in a slightly different way. Youth sees the government as significantly more responsible for providing jobs for the EU unemployed than

the Swiss unemployed (*RgJob*; $T=2.567$, $p=0.012$). Thus, the participants propose a 'corrective' mechanism fitting their perception that the EU unemployed are less responsible for being unemployed than the Swiss unemployed (*control*).

The regression analyses further support hypothesis *H1a*, revealing significant associations between deservingness opinions and welfare attitudes on social rights (see Appendix A3 for the results of all models). Figure 4 displays a panel showing estimates and confidence intervals of the full imputed weighted regression models (model 3b, Appendix A3) for both deservingness measurements (OD_{sec} , *DC*) on the social rights items. P1 presents the results for overall deservingness (OD_{sec}) and P2 for the CARIN criteria (*DC*). Even after accounting for covariates, overall deservingness (P1) is a significant predictor of replacement rates ($b=2.91$, $SE=0.74$, $p<0.001$), benefit duration ($b=2.16$, $SE=0.65$, $p<0.001$), *RgLS* ($b=0.67$, $SE=0.10$, $p<0.001$) and *RgJob* ($b=0.30$, $SE=0.08$, $p<0.001$). For all social rights items, higher overall deservingness is significantly associated with more generous attitudes.

P2 shows what CARIN criteria (*DC*) might cause the significant relationship between overall deservingness and welfare attitudes on social rights. The importance of the individual criteria varies for the different welfare attitude items. For example, the full model (including all covariates, 3b) displays a significant relationship between the replacement rate item and the *control* ($b=1.52$, $SE=0.46$, $p<0.001$), *reciprocity past* ($b=1.88$, $SE=0.64$, $p=0.003$) and *future* ($b=2.06$, $SE=0.53$, $p<0.001$) criteria. Higher scorings on those criteria are associated with significantly higher replacement rates. The latter aligns with the contribution-based nature of unemployment insurance benefits. However, despite a significant effect of overall deservingness, there is no independent single criterion effect on unemployment benefit duration. Regarding the role of government items, the analyses display statistically significant associations between *RgLS* and scorings on *control* ($b=0.25$, $SE=0.06$, $p<0.001$), *reciprocity past* ($b=0.22$, $SE=0.10$, $p=0.02$), *future* ($b=0.26$, $SE=0.06$, $p<0.001$) and *identity* ($b=0.22$, $SE=0.07$, $p=0.002$). *RgJob* is significantly associated with the *control* ($b=0.16$, $SE=0.05$, $p=0.004$) and *need* ($b=0.16$, $SE=0.06$, $p=0.004$) criteria. Only the *attitude* criterion is not significantly associated with any social rights item mirroring previous results with adults (see Knotz et al., 2022), although the threshold is nearly reached for *RgJob* ($b=0.11$, $SE=0.06$, $p=0.062$).

Figure III.4 Deservingness as a Predictor of Attitudes on Social Rights (Secondary Target Group Level: Unemployed).



Note. The estimates are based on full models, including these covariates: condition, age, gender, welfare state performance (living standard unemployed; exp. modified), political ideology (left-right), egalitarian values, nationality (Swiss; EU), self-assessment job prospects, highest education of parents (hed), self-assessment of the family's position in society, and contact to unemployed people.

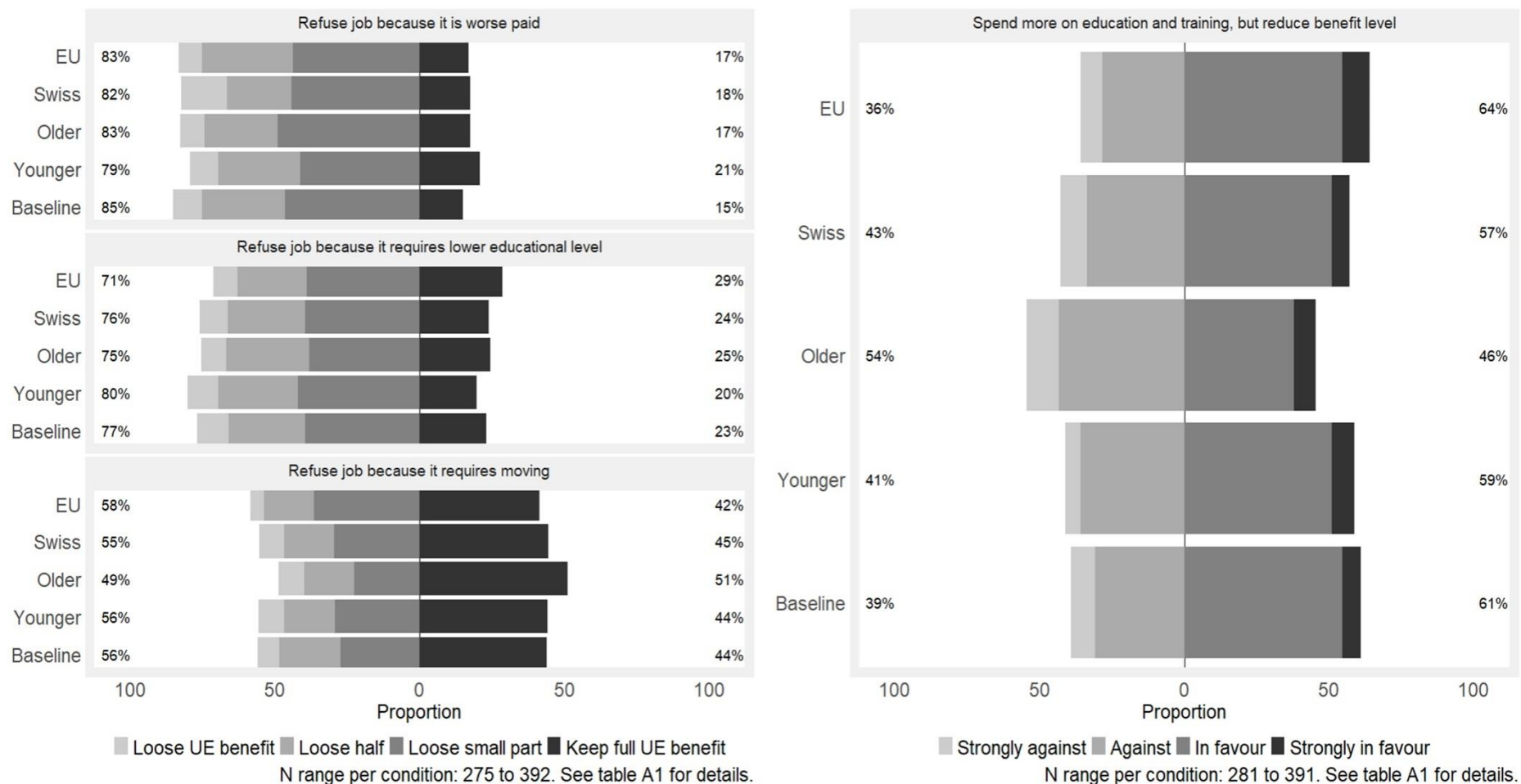
III.5.4 Deservingness Opinions as a Predictor of Welfare Attitudes Towards Social Obligations (H1b)

This section examines whether deservingness opinions also guide welfare attitudes on social obligations (H1b), following the analytical approach from the previous section. Figure 5 presents preferences for social obligations by condition, including three questions on the financial consequences of refusing a job offer and one item on social investment (reduce benefit level to increase spending on training and education, *SI*). In line with the rather low deservingness of the unemployed groups, most respondents see at least some cut in benefit payments as an appropriate measure if a job is rejected because it is paid worse (*ObPay*) or due to requiring a lower educational level (*ObEdu*). Interestingly, Swiss adolescents are much more lenient if a job is refused because it would require moving (*ObMove*). There is no significant variation for the three items between the experimental conditions and the baseline (*ObPay*: $F=0.444$, $p=0.776$; *ObEdu*: $F=1.655$, $p=0.166$; *ObMove*: $F=0.567$, $p=0.686$). The same applies to the older/younger and Swiss/EU comparisons, where the design-based Kruskal Wallis tests yield no statistically significant differences.

For the social investment item, the Wald test shows significant differences between the experimental conditions and the baseline ($F=3.487$, $p=0.010$), mostly stemming from differences between the baseline and the older unemployed condition. Swiss adolescents are less in favour of reducing benefit levels to increase spending on training and education for older unemployed people than for unemployed people in general. The same is true when comparing older with younger unemployed people (Kruskal Wallis: $T=-2.522$, $p=0.013$). While such a tendency is also visible for the EU/Swiss conditions, it is not statistically significant ($T=1.530$, $p=0.13$). Accordingly, other than for the social rights items, the significant differences in deservingness are only partly mirrored by significant differences in the obligation items.

However, the regression results in most cases reveal a significant association between *deservingness opinions* and attitudes towards social obligations, supporting *H1b* (see Appendix A4). More specifically, higher deservingness is associated with a higher probability of preferring less strict obligations, i.e., lower benefit cuts in case of job refusal. Figure 6 displays a panel showing the estimates and confidence intervals of the full imputed weighted regression models (3b, Appendix A4) for both deservingness measurements on social obligations. P1 shows results for overall deservingness (OD_{sec}) and P2 for the single CARIN criteria (*DC*).

Figure III.5 Attitudes on Social Obligations (Secondary Target Group Level: Unemployed).



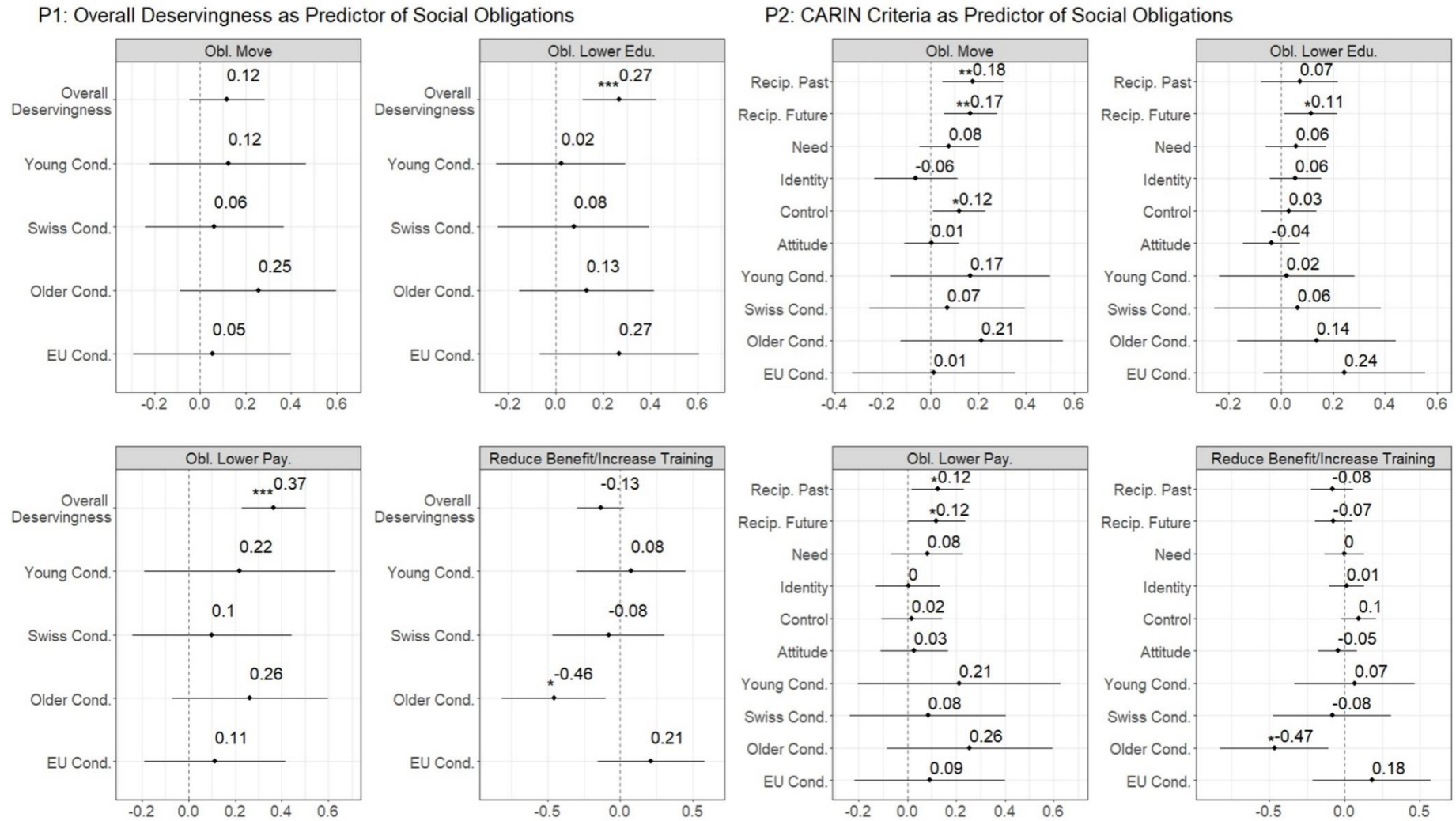
Overall deservingness (P1, OD_{sec}) is significantly associated with a higher likelihood of preferring less strict benefit cuts in case of job refusal due to lower payment (*ObPay*: $b=0.37$, $SE=0.07$, $p<0.001$) and lower educational level (*ObEdu*: $b=0.27$, $SE=0.08$, $p<0.001$). The same is not true for refusing a job because it would require moving (*ObMove*: $b=0.12$, $SE=0.08$, $p=0.164$). However, when considering the CARIN criteria (*CD*) instead of overall deservingness (see P2), *ObMove* is significantly associated with *reciprocity past* ($b=0.18$, $SE=0.07$, $p=0.007$), *future* ($b=0.17$, $SE=0.06$, $p=0.003$) and *control* ($b=0.12$, $SE=0.06$, $p=0.032$). *ObPay* is significantly associated with *reciprocity past* ($b=0.12$, $SE=0.06$, $p=0.024$) and *future* ($b=0.12$, $SE=0.06$, $p=0.048$). *ObEdu* is significantly associated with *reciprocity future* ($b=0.11$, $SE=0.05$, $p=0.028$). Thus, different from social rights, attitudes toward benefit cuts are primarily guided by *reciprocity* and *control*.

No statistically significant relationship exists between overall or criteria-based deservingness and *SI*. A potential explanation might be that reducing unemployment benefits to increase spending on training and education must not necessarily be understood as an obligation but could be seen as a positive measure to reintegrate unemployed people into the labour market.

Overall, when excluding the social investment item, the data indicate a statistically strong association between Swiss youths' deservingness opinions and welfare attitudes regarding social rights and obligations. Moreover, while higher deservingness is associated with higher generosity and less strict obligations, the criteria driving those effects differ per policy. Only the *attitude* criterion showed no independent statistically significant effect on any attitude item.

Lastly, the associations between deservingness and welfare attitudes (social rights and obligations) hold when controlling for important covariates. However, this does not mean that other explanatory frameworks (e.g., self-interest and political values) are *outweighed*, as many significant associations exist. While a detailed examination of the effect of these frameworks is beyond the scope of this article, interesting patterns emerge, requiring further investigation in future studies. For example, while egalitarian values are significantly associated with most attitudes towards social rights (*Dur*, *RgLS*, *RgJob*) across model specifications and for both deservingness measurements, this seems less true for attitudes on social obligations. Left-right positioning seems more relevant there as it is significantly associated with two of the three obligation items (*ObMove*, *ObEdu*). Significant associations of the self-interest variables with the attitude items are less pronounced (see Appendix A3 and A4).

Figure III.6 Deservingness as a Predictor of Attitudes on Social Obligations (Secondary Target Group Level: Unemployed).



Note. The estimates are based on full models, including these covariates: condition, age, gender, welfare state performance (living standard unemployed; exp. modified), political ideology (left-right), egalitarian values, nationality (Swiss; EU), self-assessment job prospects, highest education of parents (hed), self-assessment of the family's position in society, and contact to unemployed people.

III.6 Discussion and Conclusion

This paper investigates deservingness opinions and welfare attitudes of adolescents in the German-speaking part of Switzerland (N=1601, mean age: 14.6). Starting with the key findings, this is the first study to explicitly show that underaged young people rely on deservingness considerations in decisions on welfare support. The overall deservingness of the unemployed is a significant predictor of welfare attitudes towards social rights and obligations, even when controlling for performance evaluations, self-interest and political values. Higher overall deservingness is associated with support for more generous benefits and a higher probability of supporting less strict obligations. While attitudes on social rights seem to be driven by different deservingness criteria (*control, reciprocity, identity, need*), attitudes on social obligations are only significantly predicted by the *control* and *reciprocity* criteria. The *attitude* criterion is the only CARIN item without a significant effect in the regression analyses.

At the aggregate level, the participants clearly differentiate between the deservingness of different primary target groups, whereby the elderly are perceived as somewhat less deserving than in adult-centered studies. Deservingness varies less for the unemployed groups included in the survey experiment (secondary target group level). Nevertheless, the results show significant differences in line with previous adult-centered research: older unemployed are considered more deserving than younger unemployed. At the same time, in contrast to previous results, the migrant condition (EU unemployed living in Switzerland) is not perceived as less deserving than the non-migrant condition (Swiss unemployed). On the contrary, EU unemployed are seen as significantly less responsible for being unemployed (*control*). Interestingly, the significant differences seem to *translate* differently into welfare attitudes: The government should be more responsible for providing higher living standards and replacement rates for older than younger unemployed. In contrast, the government should be more responsible for providing jobs for the EU unemployed than the Swiss unemployed.

The survey results have important implications. Young people's reliance on deservingness considerations in welfare support decisions supports arguments that the deservingness heuristic could indeed be deeply entrenched in our evolutionary past (Petersen, 2012, 2015; Petersen et al., 2012). However, further support for this claim requires involving even younger participants and expanding the geographical scope within and beyond Switzerland. Moreover, this conclusion ties back to a fundamental assumption of this paper and current deservingness models (Laenen, 2020; van Oorschot & Roosma, 2017): that deservingness opinions causally precede welfare attitudes. While plausible, it is also conceivable that policy support influences how deserving we see target groups (see Cook & Barrett, 1992; Larsen, 2006). Disentangling the causal effects is an unresolved task for future studies, which should be dealt with to refine the deservingness theory.

Methodologically, the results imply that it seems right to distinguish between deservingness and welfare support (Laenen, 2020). Moreover, criteria-based assessments offer a more fine-grained picture of deservingness, which is particularly valuable when investigating secondary target groups. Still, more research is necessary on the operationalization of deservingness. For example, although *attitude* had no significant independent effect on welfare attitudes, it could be too hasty to drop it from the deservingness model (but see: Knotz et al., 2022). After all, *attitude* ranked on par with *reciprocity* and *control* when asked as a general deservingness principle.

Moreover, future research should also more explicitly investigate the role of other explanatory frameworks like self-interest or political values in shaping young people's welfare attitudes, which was beyond the scope of this article. The significant and consistent role of political values as a predictor in the regression analyses suggests that relevant insights can be gained from such research.

This is also true for political knowledge and awareness as an underexplored explanatory framework of deservingness opinions and welfare attitudes (see Jordan, 2023; Sowula, 2024b). After all, the deservingness differences between older and younger unemployed and less stark differences between EU and Swiss unemployed pretty much mirror institutional realities for unemployment insurance benefits in Switzerland. This raises questions about potential policy feedback effects (Laenen, 2018; Larsen, 2006, 2008a). However, attributing those differences to policy feedback requires critical assumptions: that participants are aware of such nuanced policy differences and, if so, that such knowledge feeds back into people's deservingness opinions.

Political knowledge and numerical competencies might also explain the answers for particular items (see Ansolabehere et al., 2013). For example, the participants called for replacement rates (mean range: 49.5–53.2%) far below existing norms in Switzerland. Answering such numerical items without an anchor might thus be too difficult for (young) people, raising questions about whether young people really want this level of unemployment protection. At the same time, valuable insights are gained from this item as the participants clearly expressed who should get higher or lower replacement rates, reflecting meaningful attitudes.

For the less technical and numerical items, it becomes even clearer that the young people in this study have meaningful views. They avoid choosing only the middle and neutral options and display consistent patterns, going well beyond 'non-attitudes' (see Converse, 2006 [1964]). A prime example of this is that the participants not only perceive a problem (EU unemployed are seen as less in control of being unemployed than Swiss unemployed) but they also propose a solution: the government should be more responsible for providing jobs for the EU unemployed than for the Swiss unemployed.

Finally, what can we learn from these deservingness opinions and welfare attitudes about the future of the welfare state? Answering this first requires acknowledging some study limitations, like the focus on youth in the German-speaking part of Switzerland. The results may thus not be directly generalizable to youth across other regions or countries. Previous studies on the different cultural and language areas in Switzerland alone suggest variation in work attitudes and demand for social welfare (Eugster et al., 2011, 2017), which might also be true for young people's deservingness opinions and welfare attitudes. Moreover, the results represent only a snapshot in time. Identifying what differences might *fade* as the participants age (age effects) and what results might signal aspects of a new *zeitgeist* (cohort effects) requires involving more age groups over time. Nevertheless, interesting insights can already be derived at this stage, which could set the basis for future cohort and longitudinal studies.

First, the lower overall deservingness of the elderly and the reversed ranking of the unemployed and social assistance recipients imply a lower emphasis on *reciprocity*. While this might change when the respondents enter the labor market, this still does not mean that the picture of a highly deserving elderly will persist in the future, given increasingly aging societies (Kweon & Choi, 2021; Naumann et al., 2020). Generational conflicts over resources (e.g., pensions, the housing market) and differences in attitudes on pressing issues like climate change (e.g., Milfont et al., 2021; Poortinga et al., 2023) might cause a re-evaluation of the elderly's deservingness among younger generations.

Second, the results reveal a complex role of the *identity* criterion. Those groups 'closest' to the average respondent (Swiss and young unemployed) are assessed most critically regarding sympathy, contrasting what one would expect from a self-interest perspective (see Sherif, 1988). Studies should thus evaluate how young people conceive the *identity* criterion and how important it is for them. Moreover, the regressions reveal that the age-based framing of the experimental conditions evokes stronger effects than nationality-based framing, raising questions on the susceptibility of young people to different framings of deservingness (see Petersen et al., 2011; Slothuus, 2007).

Lastly, the comparison of Swiss and EU unemployed is worth discussing. Swiss adolescents do not perceive the EU unemployed as less deserving than the Swiss unemployed; the EU unemployed are even seen as less in control of being unemployed. One explanation might be the comparably harder labor market challenges for migrants than non-migrants (see Kogan, 2006). Young people who have not entered the labor market might not conceive this context in terms of potentially lower future contributions (*reciprocity*) but rather in terms of *control*: migrants are seen as less responsible for their hardship. Another potential explanation is tied to young peoples' concept of *identity*. The results suggest that youth in German-speaking Switzerland might apply a broader understanding of solidarity going beyond national borders. In turn, this leaves hope that even in an environment where migration is hotly debated, the coming

generations might overcome the *inevitable deservingness gap* (see Reeskens & van der Meer, 2019). And even if this is a fallacy and the attitudes of the same respondents look different in ten years, further research could benefit greatly from pinpointing more precisely the turning points at which a change in attitudes occurs. More research is needed here, including young people of different ages and from a wider geographical scope within and beyond Switzerland to represent different contexts. Moreover, future research should also focus on other migration groups, which might be portrayed even less favorably in the media and by politicians (e.g., non-EU migrants or refugees).

Overall, it is evident that there is much to explore, and interesting insights are to be gained from investigating young people's deservingness opinions and welfare attitudes. Hopefully, this study serves as a catalyst for further research on the views of the younger demographic. It demonstrates that focusing more on young people in the *impressionable years* can improve our understanding of the social legitimacy of the welfare state by clarifying the deservingness-welfare support link. Moreover, such research might provide a snapshot of the current climate or *zeitgeist*, indicating potential directions for the future of the welfare state. Lastly, and perhaps most importantly, young people seem to have meaningful views that policymakers should consider. Doing so could boost political and policy legitimacy among young people, helping alleviate the vicious circle of youth political alienation (Stockemer & Sundström, 2023). After all, the journey to shape the welfare states of tomorrow should begin by listening to the voices of those who will carry forth the legacy of today's decisions.

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Data Availability Statement and Ethics

Anonymized data and metadata will be made available in a repository after the associated project concludes in February 2025. The project was approved by the Ethics Committee of the PHBern (21 s 0010 01) and educational authorities.

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IV. Misinformed Deservingness? Assessing Youth Competence in Welfare Support Decisions

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Abstract

This study examines adolescents' competence in fact-based decisions on welfare support (i.e., welfare attitudes) by investigating the influence of unemployment-related beliefs on deservingness evaluations of the unemployed. Moreover, it formulates strategies to foster such competencies among young people by examining potential sources of influential misinformation. The paper defines a novel competence criterion for welfare support decisions. It argues that welfare attitudes are strongly based on deservingness evaluations and thus can be considered competent if the deservingness evaluations are not rooted in misinformation. Relying on data from an original cross-sectional survey of adolescents in the German-speaking part of Switzerland (N = 1'527, weighted mean age: 14.6), the paper identifies unemployment-related beliefs significantly associated with deservingness evaluations and constructs an influential misinformation index to depict competence levels among the participants. Overall, average competence levels are satisfactory. However, misinformation, defined in this study as confidently held false beliefs, remains a concern, particularly regarding benefit overuse. In the second part of the paper, potential sources of influential misinformation are investigated, revealing signs of directional motives and a complex pattern of parental influence. A promising path to fostering political competencies among youth lies in tackling and preventing influential misinformation via educational strategies in schools and civics courses.

Keywords

Political Competence, Welfare Deservingness, Welfare Attitudes, Youth Misinformation, Unemployment, Switzerland

Unpublished manuscript.

IV.1 Introduction

Research on political competence reveals a challenging puzzle: on the one hand, political information and facts are recognized as the *currency of democratic citizenship* (Delli Carpini & Keeter, 1996, p. 8; Kuklinski et al., 2000). On the other hand, there is a seemingly limitless amount of potentially relevant historical, legal, economic, and political facts. Adding to the complexity, people can be not only *uninformed* but *misinformed*, i.e., holding false beliefs with conviction (Kuklinski et al., 2000). Thus, when political facts are conceived as the *currency of democratic citizenship*, it becomes difficult to distinguish *valuable currency* from *play money* and *counterfeit*. While identifying what political information and misinformation matters for being politically competent is relevant for all people, it is particularly important for the younger demographic. A stable democracy depends on young people developing political competencies (Easton & Dennis, 1969), with the *impressionable years* being crucial for the *making of citizens* (Neundorf & Smets, 2017).

Consequently, a key question is what information is relevant to young people's development of political competencies. Previous research suggests there is no universal set of facts people could learn to be politically competent in all regards. This is because political issues are complex, individuals have diverse informational needs, and political decisions and attitudes are value-laden. Moreover, people can rely on different heuristics when dealing with different political tasks (e.g., Sniderman et al., 1991). Therefore, instead of seeking an unattainable '*silver bullet*', a more pragmatic, evidence-based approach is to focus on one specific relevant political task at a time and investigate political competence as being competent at a politically relevant task (see Brinkmann, 2018; Lupia, 2016)²⁶. The objective is to identify *relevant* information and *harmful* misinformation to foster competence in the particular task while considering how people process and learn political information and the role of heuristics in navigating political tasks (Lupia, 2016).

This paper addresses this research gap for welfare support decisions, a relevant political task for which it remains unclear what beliefs are associated with more competent performance. First, a transparent competence criterion is defined, revolving around people's deservingness opinions as a central heuristic to decide on welfare support (e.g., Petersen, 2015; Petersen et al., 2011). It is argued that correcting and preventing misinformation that affects (young) people's deservingness opinions is key to fostering competencies in welfare support decisions. The second part of the paper presents the results of an original cross-sectional survey on

²⁶ While this task- and performance-based approach to competence does not capture all facets of the complex competence concept (see Weinert, 2001 for a detailed account), it provides a pragmatic compromise enabling the pursuit of evidence-based research on political task performance. Nevertheless, researchers should keep in mind that studies focusing on task performance do not capture all dimensions of competence, such as motivational or social aspects. In the following sections, when using the term competence, this refers only to the performance-based aspects of competence.

adolescents' unemployment-related beliefs and deservingness evaluations. The sample includes students from all geographical regions of the German-speaking part of Switzerland and from all school types at the end of mandatory schooling. The survey helps identify what *misinformation* is harmful to competence in welfare support decisions by systematically investigating associations of unemployment-related beliefs and deservingness evaluations of the unemployed. Additionally, it sheds light on potential sources of influential misinformation.

The paper contributes to the existing literature in many regards: (i) it defines a novel competence criterion for welfare attitudes via deservingness evaluations; (ii) it methodologically and substantively expands the scarce existing research on the connection between welfare-state-related beliefs and deservingness evaluations (e.g., Geiger, 2017) by distinguishing between the *uninformed* and *misinformed*, and providing insights about the relationship between welfare-state-related beliefs and deservingness among young people; (iii) it contributes to a better understanding of the origins of influential political misinformation, especially among young people in the *impressionable years*.

While distinguishing between the *uninformed* and *misinformed* is increasingly acknowledged in other areas of political knowledge and competence research (e.g., Graham, 2020, 2023; Lee & Matsuo, 2018; Pasek et al., 2015), this is not the case for previous research on the belief-deservingness link (e.g., Geiger, 2017). This oversight is problematic since corrections are more likely to fail with misinformed individuals for cognitive and motivational reasons (Ecker et al., 2014). Moreover, the misinformed might take harmful political actions, spread false information, and distort the public signal (Ecker et al., 2014; Flynn et al., 2017; Hochschild & Einstein, 2015; Jerit & Zhao, 2020; Kuklinski et al., 2000). In addition, considering the importance of the *impressionable years* on welfare attitude stability and change across the lifespan (Neundorf & Soroka, 2018), it is crucial to identify misinformation affecting young people's deservingness perceptions and its potential sources. Focusing on young people still in mandatory schooling offers particularly valuable insights as it could inform the development of evidence-based educational interventions that could reach broad audiences with diverse socio-economic and political backgrounds.

The following sections first introduce the competence framework used in this study. This is followed by a literature review and hypotheses on what unemployment-related beliefs might affect young people's deservingness assessments of the unemployed and where influential misinformation might stem from. Next, the results are presented in two parts: the associations between beliefs and deservingness perceptions are presented first (Task I), followed by evaluating competence levels and investigating potential sources of influential misinformation (Task II). Lastly, findings and policy recommendations are discussed.

IV.2 Competence in Welfare Support Decisions

As it is not possible to define a list of political facts that people could learn to be politically competent in all regards, researchers and educators are advised to focus on *specific political tasks* and provide clear, evidence-based rationales for fostering competence for these tasks (Lupia, 2016). One such relevant political task is deciding on welfare support, that is expressing welfare attitudes. Assessing the status quo and expressing support for policies, actors, and central institutions are key citizen's duties (Galston, 2001), essential for maintaining the legitimacy and stability of democratic systems (Easton & Dennis, 1969). This is particularly true in the social policy realm, considering the societal impact of the welfare state and the financial resources allocated to its means (OECD, 2023). Moreover, social policies affect social relations within and across generations, making the topic relevant to the entire population (Dean, 2019). Public opinion's influence on policy design (Brooks & Manza, 2006; Burstein, 2003) further underscores the importance of competent decision-making when deciding on welfare support.

While emphasizing the importance of competent welfare support decisions is straightforward, defining when such choices should be seen as more and less competent is not. Generally, assessing competence requires defining a logically sound competence criterion and a clear rationale behind the evaluative approach. Without transparent discussions on these, conclusions about citizens' competence are 'essentially arbitrary' (Kuklinski & Quirk, 2001, p. 289). Specifically, an *empirically measurable criterion* is needed to assess different *performance standards* for the *specific* task. It also requires justifying why certain knowledge should foster competence for the task while considering how people process political information and use heuristics (Lupia, 2016).

Defining a performance-based competence criterion for welfare attitudes along these lines is difficult because differing attitudes do not necessarily indicate different competence levels. For example, if person A states that unemployment benefits should be paid for 24 months and person B advocates for a 12-month limit, how should these choices be assessed regarding competence? As legitimate value differences and ideological convictions can underpin disagreements on political issues (Lupia, 2016; also: Sen, 1999), it is insufficient to label one choice as incompetent or ignorant simply because it differs from another (also: Lupia et al., 2007). Consequently, evaluating the choices of A and B must go beyond their attitudes and instead focus on how they arrived at their decisions. This turns the focus to the heuristics people use to navigate political tasks (e.g., Lupia, 2016; Popkin, 1994; Sniderman et al., 1991). A powerful rule-of-thumb in deciding on welfare support is the *deservingness heuristic*, where welfare support decisions are based on evaluations of how worthy a person or group is of receiving social welfare (e.g., Petersen, 2015; Sniderman et al., 1991; van Oorschot, 2000).

People assess the overall deservingness of target groups by evaluating them according to the CARIN criteria: *Control* (responsibility for the situation), *Attitude* (gratitude and rule adherence), *Reciprocity* (past and future contributions), *Identity* (closeness and sympathy towards the group), and *Need* (level of need) (van Oorschot, 2000, 2006; cf. Knotz et al., 2022). While other heuristics, like following cues from parties or interest groups, are learned from the environment (Bullock, 2011; Lupia & McCubbins, 1998; Petersen, 2015), the *deservingness heuristic* is argued to be used early in human evolutionary history to distinguish between cheaters and reciprocators in small-scale help relationships (e.g., Petersen, 2012, 2015). Support for this claim comes from studies showing that the heuristic is used automatically (Petersen et al., 2011), independent of values, culture, ideology, and welfare states (Aarøe & Petersen, 2014; Fong et al., 2006; Petersen et al., 2011, 2012; but see Hansen, 2019). Moreover, deservingness opinions strongly predict welfare attitudes already among young people (Sowula, 2024a). Acknowledging the fundamental role of the *deservingness heuristic* for welfare support decisions shifts the focus from the benefit duration preferences of A and B to how deserving A and B perceive the unemployed. However, differences in deservingness evaluations alone do not allow inferences about different degrees of competence. Instead, it is necessary to consider the determinants of deservingness (see Laenen, 2020; van Oorschot & Roosma, 2017). Setting aside legitimate value differences and political ideology shifts the focus to the knowledge and information underlying deservingness opinions.²⁷ After all, knowledge and available information affect how people use mental shortcuts (Kahneman, 2012; Popkin & Dimock, 1999; Sniderman et al., 1991). The same is argued for the *deservingness heuristic*, with erroneous use most likely when people are *misinformed* (Sowula, 2024b).

Consequently, if A and B have access to or know all the *relevant* information and arrive at different assessments of the overall deservingness of the unemployed, both assessments should be considered competent. Conversely, if one person bases their deservingness opinions and welfare support decision on false information, the choice cannot be deemed competent. The *performance standard* can then be defined as the amount of influential misinformation a person holds. This competence criterion fulfils the suggestions mentioned above. It acknowledges the role of heuristics for political competencies. It also allows for legitimate diversity in deservingness evaluations and welfare support decisions by focusing on welfare state-related beliefs as the pivotal element for competence assessments. Moreover, considering the deeply ingrained tendency to rely on deservingness considerations for welfare support decisions among people in different regions and ages, the competence criterion is well suited to study competence in welfare support decisions with young people.

²⁷ The statement is not intended to claim a one-way causality, as bidirectional causality is likely between welfare-state related beliefs and deservingness perceptions (Geiger, 2017; Sowula, 2024b).

The critical question remaining is what misinformation is associated with young people's deservingness evaluations. The following sections will elaborate on and test this issue, with a focus on unemployment-related beliefs and deservingness evaluations of the unemployed.

IV.3 Young People's Welfare State-Related Beliefs and Deservingness Evaluations

Research on welfare state-related beliefs has predominantly focused on adults, revealing considerable knowledge gaps regarding social policy matters. People often misestimate expenditures, typically underestimating pension and overestimating unemployment spending (Geiger, 2018; Taylor-Gooby et al., 2003). Similar gaps exist in knowledge about institutional rules (e.g., Jensen & Zohlnhöfer, 2020) and welfare state outcomes like benefit overuse and trends in claimant numbers (Geiger, 2018). Given these assessments of adults, it is unlikely that younger people are better informed. Accordingly, it is expected that for most knowledge items on unemployment-related matters asked in this study, the average respondent will not be informed (H1). Moreover, informedness will be lowest for questions regarding numerical values and specific quantities (H2). Quantitative questions are argued to be more cognitively demanding than qualitative ones, for example, because participants could misunderstand the scales (see Ansolabehere et al., 2013, for a discussion).

However, as Lupia (2016) clarifies, a lack of knowledge must not necessarily result in lower competence. This is because certain (mis)information might not be relevant for being competent for a task, highlighting the importance of identifying which beliefs matter for deservingness evaluations. Geiger (2017) provides a valuable starting point in this regard by showing that some beliefs are associated with undeservingness perceptions (e.g., benefit overuse), whereas others are not (e.g., benefit value). Despite these valuable insights, Geiger's study leaves some questions open, requiring further investigation. It provided limited insights about young people, used a simplified conceptualization of deservingness, omitted potentially important confounding variables (omitted variable bias), and, most importantly, did not differentiate between the *uninformed* and *misinformed*.

First, as young people might think differently about deservingness than adults (e.g., Sowula, 2024a), the belief-deservingness association might also differ. Second, Geiger (2017) tested the effects of beliefs on binary undeservingness variables (1: lower deservingness; 0: undecided/higher deservingness). This is problematic since deservingness evaluations in Europe are often about degrees of deservingness rather than absolutes (Laenen, 2020). Moreover, as target groups are typically placed above the midpoints in deservingness assessments (e.g., Sowula, 2024a; van Oorschot, 2006), the distinctions between medium to higher deservingness are particularly interesting. Additionally, Geiger's study left out potentially important

confounders of deservingness, such as egalitarian values (Laenen, 2020) and contact with target group members²⁸, which could affect the robustness of the results.

Lastly, the Geiger study did not account for confidence in beliefs, which is essential to differentiate between the *uninformed* and *misinformed* and might have introduced bias. How confident a person holds their beliefs likely affects the relationship between welfare-state-related beliefs and deservingness. For example, while Geiger (2017) identified a positive association between benefit overuse estimations and undeservingness, this association should only hold for those with at least some confidence in their estimations. Moreover, while higher confidence should enhance this effect, it should diminish for those who have guessed. Statistically speaking, when studying associations of estimations and deservingness, this suggests an interaction between estimations and confidence rather than a simple main effect of estimations (H3). Confidence in beliefs also likely impacts the relationship between deservingness and beliefs in qualitative aspects like the design of institutional rules. For example, being correct that the unemployed must meet eligibility criteria to obtain benefits should result in higher perceived deservingness due to higher assumed past contributions (*Reciprocity*) (Laenen, 2018). Conversely, assuming that all unemployed people are eligible without meeting criteria should result in lower perceived deservingness, whereas uninformedness about the criteria should result in intermediate levels. Again, effects should, on average, be more pronounced with increasing confidence of being correct.

While it is probably not possible to list all relevant unemployment-related beliefs, some beliefs are more likely to affect deservingness evaluations than others. Potential candidates are beliefs logically related to at least one of the CARIN criteria guiding the overall deservingness assessment (see Sowula, 2024b). Accordingly, only knowledge items were included in the study that can be at least indirectly connected to the CARIN criteria, leading to the following hypotheses (see *methods* and Appendix A1 for the detailed wording):

IV.3.1 Estimation Tasks

- Unemployment rates: Higher unemployment rates should be associated with higher perceived deservingness, as more people assume economic reasons for job loss (*Control*) (see Larsen, 2006). However, previous research argues that it is not the actual unemployment rate that matters for welfare attitudes but people's perceptions of unemployment (see Kunovich, 2012). Thus, despite the low unemployment rates in Switzerland, assuming higher unemployment rates should be associated with higher perceived deservingness.

²⁸ A possible mechanism here could be the *representativeness heuristic*, where people could draw inferences about a whole target group based on having met few people from the group (see Kahneman & Tversky, 1972)

Following H3, this association should be significant only for participants confident in their estimations (H4i).

- Unemployment benefit overuse: Confidently estimating higher benefit overuse will be associated with lower perceived deservingness as it negatively tangles the *Control*, *Attitude*, *Reciprocity*, and *Need* criteria (see Geiger, 2017 for an additional explanation) (H4ii).
- Poverty rate among the unemployed: Confidently estimating higher poverty rates among the unemployed should be associated with higher deservingness due to higher financial *Need* (H4iii).

IV.3.2 Qualitative Questions

- Existence of eligibility rules (true): Assuming incorrectly that unemployment benefits can be obtained without meeting eligibility criteria will result in lower deservingness of the unemployed due to lower implicit *Reciprocity* scores (also Laenen, 2018) (H4iv).
- Maximum duration of unemployment benefits is two years (true): Incorrectly assuming a shorter maximum benefit duration will lead to higher deservingness due to higher *Need* and *Future Reciprocity* scores (H4v).
- The maximum replacement rate is 50% (false): Falsely assuming a maximum replacement rate of 50% should result in higher perceived deservingness due to higher *Need* (H4vi).
- Replacement rate is higher with children (true): Participants who incorrectly assume that unemployment benefits are not higher for recipients with children could perceive unemployment benefits as too high for those without children, resulting in lower *Need* and deservingness (H4vii).
- Only Swiss citizens are eligible for unemployment benefits (false): Incorrectly assuming that only Swiss citizens receive benefits should result in higher deservingness as it implies higher financial *Need* for unemployed people without Swiss citizenship (H4viii).
- Eligibility for unemployment benefits after finishing education (true): assuming that young people are not eligible for support from unemployment insurance after completing their education could result in seeing (young) unemployed as more deserving due to higher financial distress (*Need*). The *Identity* criterion could amplify this effect, as the participants are at the end of mandatory schooling (H4ix).
- Highest spending (old age true answer): The incorrect assumption that old age is not the highest social policy expenditure sector should negatively affect deservingness perceptions of the unemployed only if the participants instead assume that unemployment is the highest area, explained by lower *Need* (H4x).

- Lowest spending (unemployment true answer): assuming that unemployment is not the lowest social policy expenditure sector among the given options should result in lower perceived deservingness due to lower (financial) *Need* (H4xi).
- Unemployed must take every job even if paid less (false): assuming stricter obligations should result in lower perceived deservingness as participants might conclude that unemployed people often turn down jobs and do not want to go back to work, negatively affecting *Control* and *Reciprocity* (H4xii).
- Social assistance is the same as unemployment benefits (false): assuming that social assistance and unemployment benefits are the same things should result in implicit lower *Reciprocity* scores and deservingness (see Sowula, 2024b) (H4xiii).

While misinformation in some cases is expected to be associated with higher perceived deservingness, most often, being misinformed should result in an 'anti-welfare direction', i.e., the unemployed should be seen as less deserving (H5). If also true for younger people, this would align with trends in adult-centered research (see Geiger, 2017; Kuklinski et al., 2000).

Besides identifying influential misinformation, it is crucial to shed light on its sources, as this represents essential information for developing policy recommendations and educational interventions. In this context, it is worth looking at directional motives, individual-level predictors, and socialization agents.

IV.3.3 Sources of Misinformation

Directional Motives

Previous adult-centered research makes a strong case for directional motives as a source of misinformation, where individuals seek conclusions in line with their ideological and political (world)views (Flynn et al., 2017; Jerit & Zhao, 2020; Lodge & Taber, 2013). Although young people are often assumed to be politically more open than adults (e.g., Neundorf & Smets, 2017), they are certainly not apolitical (e.g., Rico & Jennings, 2016). Accordingly, directional motives may also lead to misinformation among youth. Several indications would suggest the presence of directional motives among the participants in this study. One such indicator would be replicating the intriguing pattern found by Kuklinski et al. (2000), where the most confident participants were the furthest from the correct answer (H5i).²⁹ Another more direct indication would be a correlation between political orientation and the prevalence of influential misinformation (H5ii). While motivated cognition and directional motives occur across the political spectrum (e.g., Nisbet et al., 2015), most misinformation in this study is expected to lead to

²⁹ Considering that social policy topics are value-laden topics, directional motives are a plausible explanation for this pattern.

an 'anti-welfare' stance. Consequently, directional motives might lead right-leaning participants to exhibit higher levels of influential misinformation.

Other Individual-Level Factors

Besides directional motives, several other individual-level factors are said to influence political knowledge and confidence in beliefs³⁰ including the level of formal education, political interest, gender, migration background, and age (e.g., Adman & Strömblad, 2018; Alvarez & Franklin, 1994; Fletcher & López-Pérez, 2022; Fraile, 2014; Kraft, 2024; Kuklinski et al., 2000; Lee & Matsuo, 2018; Wolak & McDevitt, 2011). Lower age, lower level of education, and less interest in social policy and politics are all expected to be associated with higher misinformation (H6i-iii). Misinformation should also be higher among non-Swiss students, as political knowledge tends to be lower among migrants than non-migrants (e.g., Adman & Strömblad, 2018) (H6iv). Gender effects are less clear. Although previous adult-centred research often highlights gender gaps in political knowledge (Wolak & McDevitt, 2011; cf. Kraft, 2024), this may not apply to youth and children (e.g., Fletcher & López-Pérez, 2022). The opposite might even be true for misinformation, as research indicates that male respondents have higher perceived knowledge (Banwart, 2007). In contrast, female respondents are more likely to answer 'don't know' in political knowledge surveys (Mondak & Anderson, 2004). This tendency for male participants to express higher perceived knowledge could mean they have higher levels of misinformation due to overconfidence in their responses (H6v). Finally, contact with unemployed people could influence what individuals know about unemployment-related matters, potentially leading to less misinformation (H7).

Sozialisation Agents

Lastly, since the respondents are in their *impressionable years*, it is essential to consider the influence of important socialization agents like parents, peers, schools, and media (e.g., Jennings, 1984; Jennings et al., 2009; Neundorf et al., 2016; Niemi & Junn, 1998; Tedin, 1980; Wattenberg, 2020; for a review: Neundorf & Smets, 2017). However, the impact of engaging more frequently about political topics with these agents on misinformation is unclear. Higher engagement could either reduce or increase misinformation, which is why no specific hypothesis is formulated regarding their influence. The only exception is for schools, where it is assumed that more frequent discussions about political topics in class are expected to reduce misinformation among young people (H8).

³⁰ However, most of this research focused only on accuracy and not on confidence (see Lee & Matsuo, 2018 for an exception), which must be seen as a limitation for the variable choices.

IV.4 Methods

IV.4.1 An Empirical Test (Sample and Study Context)

To test the outlined hypotheses, the empirical part of the paper first identifies which beliefs are associated with young people's perceptions of deservingness (Task I). Next, the results from Task I are used to construct an influential misinformation index to analyze the student's competence levels and explore the potential sources of influential misinformation (Task II). For this, data were collected through an original cross-sectional survey on unemployment-related beliefs and the perceived deservingness of the unemployed with young people at the end of mandatory schooling (8th/9th grade) in the German-speaking part of Switzerland (N = 1'527, weighted mean age: 14.6).

The Swiss context, thematic focus on unemployment, and the chosen age group are particularly suitable for this study. Misinformation is more prevalent on salient and frequently debated topics (Ecker et al., 2014; Jerit & Zhao, 2020; Pasek et al., 2015). As the participants are at the end of mandatory schooling, unemployment is a particularly salient topic, more so than other social risks like sickness or old age. Moreover, despite Switzerland's relatively low unemployment rates, the unemployed are frequently discussed in Swiss public and political debates, often portrayed as 'undeserving' by the leading Swiss People's Party to promote re-trenching reforms (Afonso & Papadopoulos, 2015).³¹ These factors increase the likelihood of identifying unemployment-related misinformation.

In addition, the participants in the sample fall within the 'peak period of sensitivity' between 7 and 17 (Bartels & Jackman, 2014, p. 16), making the study particularly relevant from both a socialization and misinformation research perspective. Experiences during the *impressionable years* can have long-lasting effects on welfare attitudes across a person's lifespan (Neundorf & Soroka, 2018), and misinformation might be harder to tackle later in life (Sowula, 2024b). Accordingly, detecting influential misinformation and educational needs is crucial at this stage. Reaching individuals systematically across different social strata and political orientations also becomes more difficult after they leave mandatory schooling, which is important from a policy recommendation perspective.

While the single case approach of this study may limit the generalizability of some findings or educational recommendations that are specific to Switzerland (e.g., misinformation related to the Swiss welfare state design), it allows to control for (unobserved) contextual factors that might influence the variables of interest, such as the welfare state design or culture (see Neundorf & Soroka, 2018 for a similar argumentation). Given that the study generates broader

³¹ Switzerland's situation is not unique in this but rather exemplifies a phenomenon observed in many countries where negative images and stereotypes of the unemployed are prevalent in media and political debates (see, for example, UK: Fletcher et al. (2016); McArthur & Reeves (2019), and Germany: Oschmiansky et al. (2003), among others).

insights relevant beyond the Swiss context, it serves as a valuable baseline for future comparative research. For example, it investigates whether young people are misinformed on welfare state-related matters and to what extent it is associated with their deservingness evaluations, thus affecting their competence in welfare support decisions. The same applies to exploring potential sources of influential misinformation that are not unique to Switzerland (e.g., via socialization agents). While some characteristics may differ for young people in other countries, the general mechanisms are also expected to apply to youth in different contexts.

IV.4.2 Sample Description

The sample consists of students in 8th/9th grade across all school levels from all geographical regions in the German-speaking part of Switzerland to enhance the generalizability of results.³² It closely matches the intended population, with some deviation in canton proportions and school type (see Appendix A3). To enhance the representativeness, raking weights were calculated and applied in the analyses based on the following variables: gender, canton, school year, school type, and Swiss nationality. The weights were calculated following recommendations in DeBell (2018) and DeBell & Krosnick (2009), using data from the Swiss Federal Statistical Office (BFS, 2023a) and supplemented by cantonal data.

IV.4.3 Data Collection Process

Data were collected in two phases (May-July 2022, January-May 2023). An online questionnaire administered in class was used for data collection. Schools were systematically contacted. All eligible schools were contacted in smaller cantons, while a systematic probability-proportional-to-size approach was used in larger cantons (see Rust, 2014). Permission to contact schools was obtained through educational authorities and departments. Participation was voluntary and followed a multi-step consent and information procedure involving educational authorities, principals, teachers, students, and parents. Students could withdraw from the study at any point (before, during, or after participation) without any negative consequences. The average completion time was 22 minutes. The ethical and data protection approach employed in this study adheres to cantonal and federal regulations and was reviewed and approved by educational authorities and the Ethics Committee of the PHBern.

IV.4.4 Survey Item Development

The survey items were tested rigorously to avoid comprehension issues among the participants. This includes a cognitive pretest with individuals from the target population using a 'think-aloud' method, which helps identify and revise unclear phrasings (Lenzner et al., 2015).

³² Specifically, students from the following cantons participated: Appenzell Outer Rhodes, Argovia, Bern, Fribourg, Glarus, Grisons, Lucerne, Nidwald, Obwald, Solothurn, St. Gall, Uri, Zug, and Zurich. Considering that the survey was conducted in German and only with students in the (at least partly) German-speaking part of Switzerland, caution is warranted regarding generalizations to the other Swiss language regions (see also Eugster et al., 2017).

Next, an additional pretest was conducted with 74 students in four classes in Bern. Feedback was collected after completing the pretest survey to address comprehension or functionality issues. Data from the second pretest were not included in the final analytical sample of this study, as some knowledge items were modified based on the feedback obtained. No issues were raised regarding the deserving items. The following section details the variables used in the study to approach tasks I and II. The exact wording of all items is presented in A1. A2 displays weighted summary statistics of all variables used in the paper.

IV.4.5 Task I Measurements: Belief-Deservingness Associations

Overall Deservingness of the Unemployed

The perceived deservingness of the unemployed is measured by combining information from two 5-point Likert-type items, indicating the extent to which the unemployed deserve to receive social welfare from the government (see A1 for more details). Answer options range from “Do not deserve it at all” (1) to “Fully deserve it” (5). The combined item is treated as a numerical variable in the analysis. To contrast results with other target groups, the survey also asked for the perceived overall deservingness of the elderly, families with children, social assistance recipients, the sick, and the disabled.

Beliefs

Table 1 lists all unemployment-related belief items analyzed in this study (Q1-Q13), including their confidence in belief measurements (guess/don't know; probably correct; certainly correct) and the reference points used to define correct responses (see A3 for details). The items are organized into three areas, depicting crucial welfare state dimensions (Sowula et al., 2024). Two items focus on *expenditures* (highest/lowest spending; Q1-Q2, qualitative questions), seven on *institutional design* (existence and design of institutional rules; Q3-10, qualitative questions), and three on *outcomes* (unemployment rate, poverty rate among the unemployed, benefit overuse; Q11-Q13, estimation tasks). Confidence measurements were integrated within most belief items to reduce research fatigue in young respondents due to lengthy questionnaires (Felzmann, 2009).

Misinformation and Accuracy/Correctness of Responses

Following (Kuklinski et al., 2000, p. 793), people are misinformed if they ‘firmly hold beliefs that happen to be wrong’. Accordingly, a participant is defined as misinformed regarding an item in this study if their answer is (i) false and (ii) they are probably or certainly sure of their answer. Conversely, a person is considered informed if their answer is (i) correct and (ii) they are probably or certainly sure of their answer. Lastly, a person is deemed uninformed if their answer is don't know or a guess.

For the qualitative questions Q1-Q10, assessing the correctness of responses is straightforward, as each question has an undisputable correct answer. For example, to receive unemployment benefits, unemployed people need to meet eligibility rules (Q3). This allows for the creation of ordinal variables for Q1-Q10, indicating degrees of knowledge and misinformation: correct and certainly right (1), correct and probably right (2), don't know/guess (3), false and probably right (4), false and certainly right (5).

Assessing correctness is more complicated for the estimation tasks Q11-Q13. Although Q11-Q13 also ask for knowledge of factual information, evaluating estimations requires *transparent truth discussions* (Geiger, 2018). Previous research addressed this by defining a threshold for correct answers (e.g., Geiger, 2017, 2018). However, this approach is problematic as such thresholds can be somewhat arbitrary and may mask important qualitative differences. For example, if the official³³ unemployment rate is 2% and answers are defined as correct within the range [0;5], this treats responses of 6% and 50% as equally incorrect, whereas responses of 5% and 6% are considered qualitatively different despite the minimal percentage point difference.

To address this issue, this study adopts a more objective approach by analyzing the estimation tasks through *distance variables*, which capture the extent to which a participant over/underestimates official statistics. The *distance variables* are constructed by subtracting the official statistic value from the estimation, resulting in negative values for underestimations, positive values for overestimations, and a score of 0 for correct estimations. Although this approach prevents clearly labeling individuals as *misinformed* or *informed* regarding specific items, it provides a crucial nuance to the analysis. After all, it is more likely that the difference to the correct answer matters more than surpassing a specific threshold. Moreover, it eliminates problems associated with a threshold definition.

Control Variables for Deservingness Evaluations

To control for potential confounders that might influence the perceived deservingness of target groups (see Laenen, 2020; van Oorschot & Roosma, 2017) in Task I, the following variables are included in the models assessing the belief-deservingness association: age, gender, nationality (EU, Swiss), political orientation (left-right scale), egalitarian values (assessment whether a fair society requires small differences in living standards), future job prospects (self-assessment), school type visited by the student (binary variable)³⁴, highest education of parents, the perceived position of the family in society (self-assessment), and contact with unemployed people. All variables are detailed in A1.

³³ Official is understood as statistics from reputable institutions like the State Secretariat of Economic Affairs (SECO).

³⁴ Relying on a binary distinction of the school level (0 basic; 1 medium/higher) aligns with the official statistics (BFS, 2023a).

Table IV.1 Belief Items.

Expenditures	Questions	Answer Options	Correct
Q1: Highest Spending	Below, you see some social security areas on which the government spends money. What do you think: What area has the largest amount of money spent on?	Sickness/ Families (kids)/ Unemployment/ Disability/ Old age	Old age
Q1c: Confidence	How confident are you in your answer?	Don't know (guess)/ probably correct / certainly correct.	
Q2: Lowest Spending	And what do you think: What area has the lowest amount of money spent on?	Sickness/ Families (kids)/ Unemployment/ Disability/ Old age	Unempl.
Q2c: Confidence	How confident are you in your answer?	Don't know (guess)/ probably correct / certainly correct.	
Institutional Design	Questions	Answer Options	Correct
Q3: Existence of Eligibility Rules	Picture the following: Elias is unemployed and would like to receive unemployment benefits. State whether the following statement is true or false: "Elias must fulfill certain requirements/criteria to receive unemployment benefits. If he does not meet them, he cannot receive unemployment benefits."	Certainly true/ probably true/ don't know/ probably false/ certainly false	True
Q4: Eligibility after finishing education	Picture the following: Nina has just finished several years of education/training. She wants to register as unemployed with the Regional Employment Center (RAV) to receive unemployment benefits until she finds her first job. Indicate whether the following statement is true or false: "Nina will receive unemployment benefits."	Certainly true/ probably true/ don't know/ probably false/ certainly false	True
Introduction to Q5-9: Lea is Swiss and has worked for the last 4 years, earning CHF 4000 monthly. She has been unemployed since last week. She is 35 years old and has no children. She has registered as unemployed with the Regional Employment Center (RAV) and will now receive unemployment benefits. For each of the following statements, indicate whether they are true or false:			
Q5: Obligations	Lea must accept any job offer from the RAV, even if it pays less than her previous job. If she refuses, she will lose part of her unemployment benefit.	Certainly true/ probably true/ don't know/ probably false/ certainly false	False
Q6: Eligibility -Nationality	Lea only receives unemployment benefits because she is Swiss. If she only had a passport from an EU country instead, she would NOT receive unemployment benefits.	Certainly true/ probably true/ don't know/ probably false/ certainly false	False
Q7: Replacement rate - Children	Lea would receive a higher unemployment benefit if she had children.	Certainly true/ probably true/ don't know/ probably false/ certainly false	True
Q8: Replacement Rate - Maximum	Lea will receive a maximum of half (50%) of her last salary through her unemployment benefit. This means that Lea will receive a maximum of CHF 2000 monthly.	Certainly true/ probably true/ don't know/ probably false/ certainly false	False
Q9: Benefit Duration	Lea can get unemployment benefits for a maximum of two years.	Certainly true/ probably true/ don't know/ probably false/ certainly false	True
Q10: Social Assistance ¹	State whether the following statement is true or false: "Unemployment benefit is the same as social assistance."	Certainly true/ probably true/ don't know/ probably false/ certainly false	False
Outcomes	Questions	Answer Options	Correct
Q11: Unemployment rate	Of every 100 people of working age in Switzerland how many would you say are unemployed and looking for work?	Scale 0-100	2% (rounded)
Q11c: Confidence	How confident are you in your answer?	Don't know (guess)/ probably correct / certainly correct.	
Q12: Benefit overuse (improperly received benefits)	And how many out of 100 people who receive unemployment benefits, receive them improperly?	Scale 0-100	1% (rounded)
Q12c: Confidence	How confident are you in your answer?	Don't know (guess)/ probably correct / certainly correct.	
Q13: Poverty rate among unemployed	Now think of all the unemployed people in Switzerland. What would you say: Out of 100 unemployed people in Switzerland, how many are poor? A person living alone is considered poor if they have less than ~ CHF 2,300 monthly income.	Scale 0-100	29% (rounded)
Q13c: Confidence	How confident are you in your answer?	Don't know (guess)/ probably correct / certainly correct.	

Note. Sources of correct answers can be found in Appendix A4. The correct answers to the estimation tasks are based on the following years: unemployment rate (2022), benefit overuse (2020, most recent available data), and poverty among the unemployed (2022). ¹ This question was only asked in the second data collection round (N = 541).

IV.4.6 Task II Measurements: Performance Standard and Sources of Influential Misinformation

Task II aims to evaluate competence in welfare support decisions via deservingness evaluations and identify potential sources of misinformation. For this, an influential misinformation index is constructed, depicting each participant's amount of influential misinformation. Misinformation is defined as influential in this study when significantly associated with deservingness, as this could compromise competence in welfare support decisions.

Construction of 'Misinformation Index'

The misinformation score is constructed as the sum of the individual item scores included in the index. The belief items feeding into the index are identified via regression analyses in Task I (see also *empirical strategy* and *results*). To create an interpretable index that can be used as a numerical variable in regressions, each item feeds into the index with a score between 0 (not misinformed) and 1 (misinformed). Applying this logic to the responses from the qualitative questions Q1-Q10, a participant receives a score of 0 if informed or uninformed and 1 if misinformed (false and somewhat/very certain). For the estimation tasks Q11-Q13, a different approach is necessary as it is not possible to define when a participant is misinformed without facing the threshold definition problem (see above). Thus, an approximation approach is used for the estimation task responses by creating $estimation_{mis}$ variables:

$$estimation_{mis} = \begin{cases} 0, & \text{conf} = 0, \text{sig. interaction (estimation x confidence), no main effect (estimation)} \\ \frac{d}{d_{MAX} - d_{MIN}}, & \text{conf} = 0, \text{sig. interaction (estimation x confidence), sig. main effect (estimation)} \\ \min\left(\frac{d \times 2}{d_{MAX} - d_{MIN}}; 1\right), & \text{conf} = 1, \text{sig. interaction (estimation x confidence)} \\ \min\left(\frac{d \times 3}{d_{MAX} - d_{MIN}}; 1\right), & \text{conf} = 2, \text{sig. interaction (estimation x confidence)} \end{cases}$$

whereby $d = |Over - /Underestimation|$.

The design of the $estimation_{mis}$ variables ensures comparability to the scores from the qualitative questions in range $([0, 1])$ and mimics the essence of misinformation, i.e., a person receives a higher score depending on how far off it is from the official statistic, amplified by the confidence in estimation. For those who have guessed ($conf = 0$), two scenarios are possible. If there is no significant main effect of the estimations, the score is set to zero as being far off is unrelated to deservingness (see also hypothesis H3). In case the expectation in H3 is false and a significant main effect of estimations exists, a score is calculated by normalizing the distance to the official statistic (d) with a min-max normalization.

For the two remaining cases ($conf > 0$), a significant interaction effect would imply that higher confidence increases the effect of being far off. To account for this, d is multiplied before normalization to introduce an amplifier effect as confidence increases (times two/three for

somewhat/very certain). Lastly, a maximum cap of 1 is applied to cases 3 and 4 to maintain the comparability of the range ([0,1]).

Potential Predictors of Misinformation

Following the hypotheses section, the following variables are included in the models for Task II aiming to shed light on the sources of influential misinformation: age, gender, school type, Swiss citizenship, and interest in politics in general and in social policy (self-assessment) are included as potentially relevant individual-level variables that might influence knowledge and confidence in beliefs. Political orientation (left-right scale placement) is used to test for directional motives, and contact with unemployed people is included as a categorical variable. Lastly, engagement with socialization agents is measured using an adapted item from the International Civic and Citizenship Education Study 2016 (IEA-International Association For The Evaluation Of Educational Achievement, 2018). The item asks for the frequency of searching for political information outside of school and discussing political topics with parents, peers, and in school lessons. Response options range from never to almost monthly, weekly, and daily.

IV.4.7 Empirical Strategy

The paper first presents descriptive statistics for the perceived deservingness of the unemployed compared to other target groups and examines responses to the belief questions. For the qualitative questions (Q1-Q10), statistics display the share of informed, uninformed, and misinformed participants. For the estimation tasks (Q11-Q13), statistics display the accuracy of estimations (Q11-Q13). All descriptive statistics and figures use weighted data³⁵ following advice from Lavallée & Beaumont (2015) and Solon et al. (2015). Next, the study examines associations between beliefs and perceived deservingness of the unemployed using linear regressions (Task I). The responses to the qualitative questions (Q1-Q10) and estimation tasks (Q11-Q13) are introduced differently in the models. For the qualitative questions, the ordinal variables ranging from 1 (correct and certainly right) to 5 (false and certainly right) are introduced in the regression models via orthogonal polynomial contrasts to detect potential linear and higher-order relationships. For the estimation tasks and confidence in estimations, interaction models are used to assess the association of over-/underestimations to deservingness while accounting for people's confidence in beliefs. To increase the robustness of results, different model specifications are employed, robust standard errors are applied where possible, and weighted and unweighted models are considered (see also Solon et al., 2015). Results for the weighted models are presented in the following sections, with complete regression results provided in Appendix A5 and A6.

³⁵ The weighted analyses are performed using the R packages "survey" and "srvyr" (Ellis, 2023; Lumley, 2023a).

After identifying the relevant beliefs in Task I, the analysis focuses on influential misinformation and its potential sources in Task II. First, the influential misinformation index is constructed as outlined above, and descriptives are calculated to display participants' competence levels. Next, potential sources of influential misinformation are investigated via linear regression models. Again, different model specifications are considered, robust standard errors are used where possible, and orthogonal polynomial contrasts are incorporated for ordinal predictors. Unweighted regression results are shown in A7.

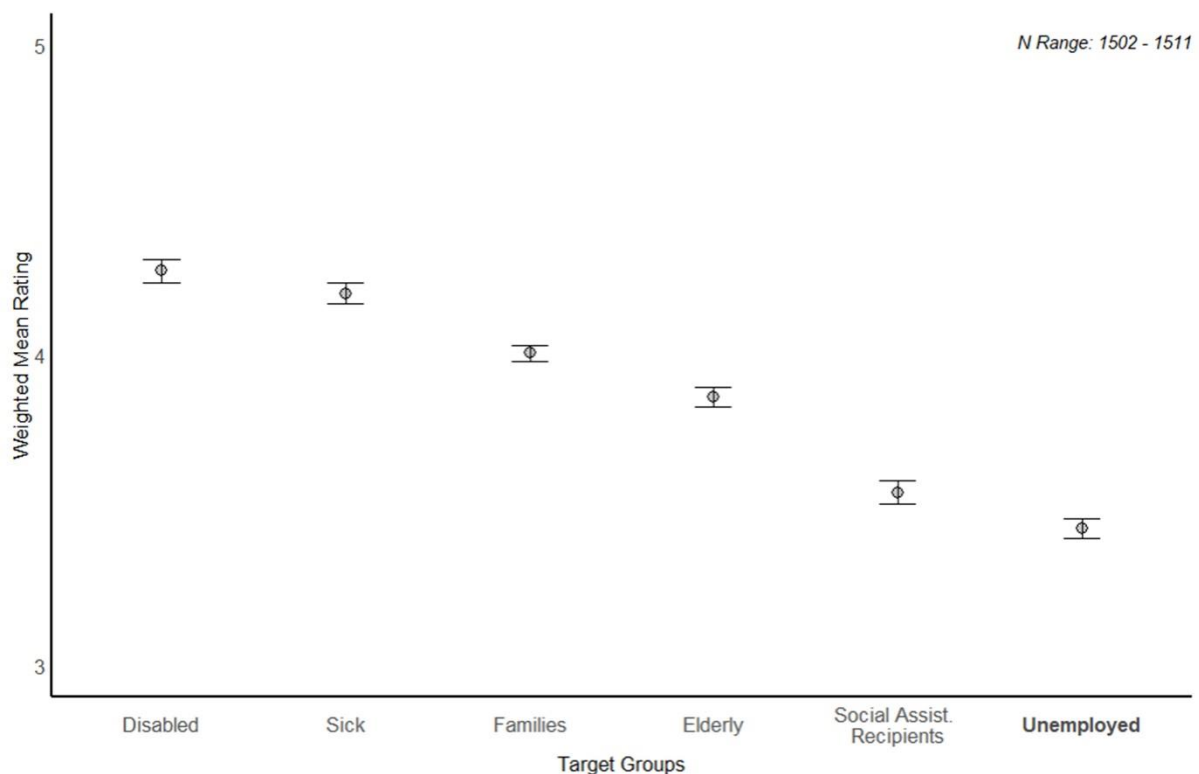
IV.5 Results

IV.5.1 Task I: Belief-Deservingness Association

Overall Deservingness of the Unemployed in Contrast to Other Target Groups

Figure 1 presents the results of the overall deservingness assessment. On an aggregate level, the unemployed are seen as the least deserving target group (mean = 3.44, SE = 0.03, on a 1-5 scale), whereas the disabled are seen as the most deserving group (mean = 4.27, SE = 0.04). The fact that the unemployed are seen among the less deserving groups largely aligns with previous adult-centered research (Laenen & Meuleman, 2017)³⁶.

Figure IV.1 Overall Deservingness Assessment.

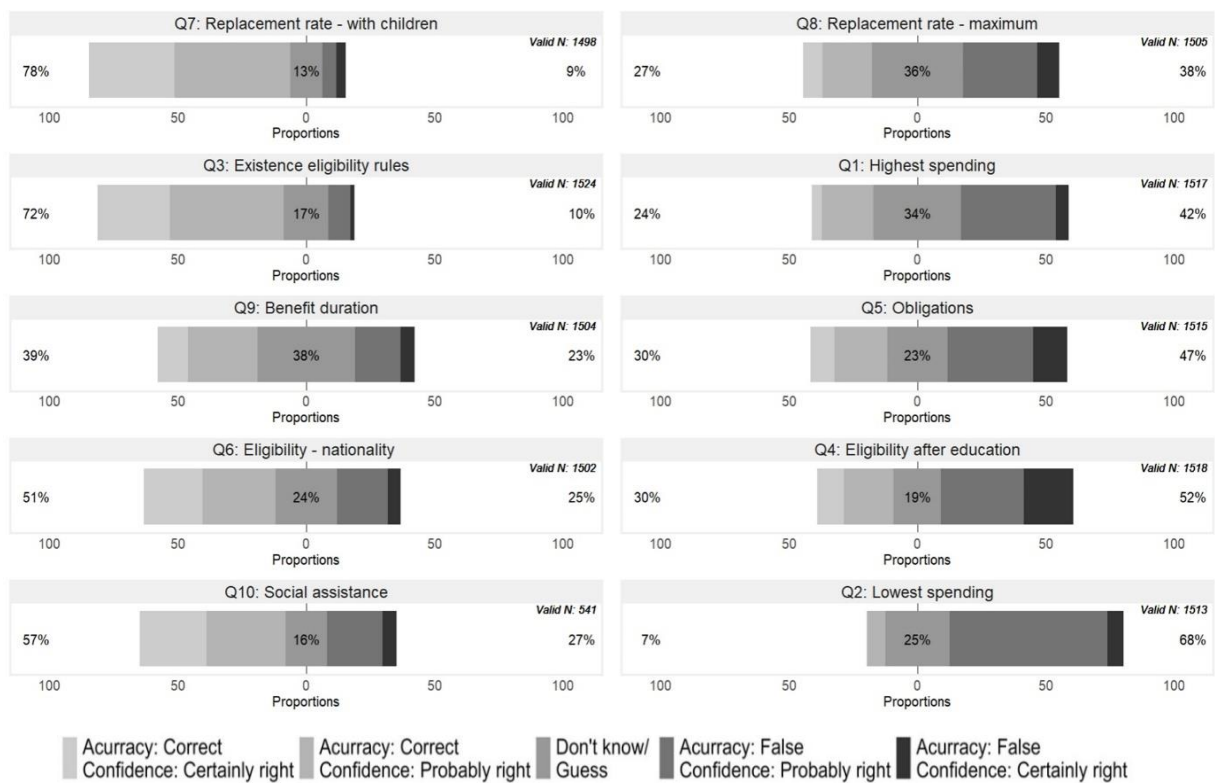


³⁶ Notable differences are the somewhat lower position of the elderly and the fact that social assistance recipients are perceived as more deserving than the unemployed (see also Sowula, 2024a).

Descriptives Qualitative Questions Q1-Q10: Share of Informed, Uninformed, and Misinformed Participants

Figure 2 displays the participants' beliefs regarding the qualitative questions Q1-Q10, sorted by the proportion of informed, uninformed, and misinformed participants. As hypothesized in H1, for most items, the share of informed participants is lower than the combined share of uninformed and misinformed participants. Only for Q7, Q3, Q6, and Q10 do informed participants constitute a majority (>50%). High levels of informed responses are observed for Q7 (replacement rate is higher with children: 78%) and Q10 (existence of eligibility rules: 72%). Conversely, informedness is lowest for Q8 (replacement rate maximum: 27%), Q1 (highest spending: 24%), and Q2 (lowest spending: 7%). This supports H2, suggesting that questions about quantities may be cognitively more demanding than qualitative questions. This is further evidenced by the fact that the proportion of uninformed participants is highest for questions on quantities (Q9: 38%, Q8: 36%, Q1: 34%, Q2: 25%). Interestingly, the same is not fully true for misinformation. While misinformation is highest for Q2 (68%), it is also prevalent for questions not specifically addressing numerical quantities, such as Q5 (sanctions for turning down a job: 47%) and Q4 (eligibility of support after finishing education: 52%). This suggests that the factors contributing to uninformedness and misinformation may not fully overlap.

Figure IV.2 Weighted Share of Informed, Uninformed, and Misinformed Participants for Q1-Q10.

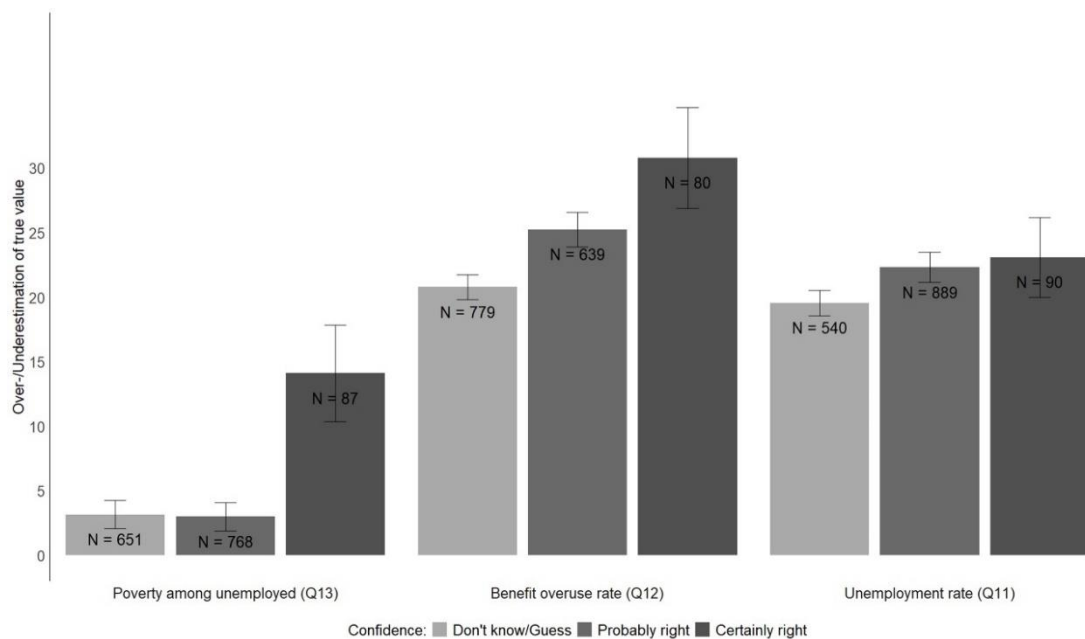


Descriptives Estimation Tasks Q11-Q13: Over- and Underestimation of Official Statistics

Figure 3 displays the average estimation accuracy for Q11-Q13, categorized by levels of confidence (don't know/guess; probably right; certainly right). Negative values represent under- and positive values overestimations. On average, participants overestimate all quantities, although they are relatively accurate regarding the poverty rate among the unemployed (Q13: mean = 3.75, SE = 0.75). The same is not true for the unemployment rate and benefit overuse, where the mean overestimation exceeds 20 percentage points (Q11: mean = 21.68, SE = 1.02; Q12: mean = 23.29, SE = 0.98).

Notably, estimation accuracy decreases with increasing confidence, resembling the pattern in Kuklinski et al. (2000) that those farthest away from the correct answer are the most convinced of their beliefs. For poverty rate estimations (Q13), this pattern is only evident among those who stated they are certainly right. For the unemployment rate (Q11) and benefit overuse estimations (Q12), there is a gradual increase in overestimation with increasing confidence. This supports the hypothesis that directional motives might also be a source of misinformation among young people (H5i). At the same time, there are also deviations when comparing response patterns in this study with those in Kuklinski et al. (2000). The young participants in this study generally expressed lower confidence in beliefs, for example, visible in higher share of guesses and lower share of very confident responses.³⁷ This suggests that directional motives, if present, could be weaker among youth than adults.

Figure IV.3 Estimation Accuracy for Q11-Q13.



³⁷ While some differences can be attributed to the variation in questions asked, the substantial discrepancies in confidence levels between the studies provide valuable insights considering that both studies focus on welfare state-related estimations.

Association Between Knowledge Items and Overall Deservingness of the Unemployed

Table 2 presents the results of four regression models: (i) baseline (single belief ~ deservingness), (ii) baseline control (single belief + controls ~ deservingness), (iii) all beliefs (all beliefs ~ deservingness), and (iv) full model (all beliefs + control ~ deservingness). For the qualitative questions Q1-Q10, orthogonal polynomial contrasts were used in the regressions to detect polynomial trends in the dependent variable when progressing from being informed (level 1: correct and very certain) to being misinformed (level 5: false and very certain). The table details the results of the linear polynomial trend analysis (denoted by '.L'), indicating the existence or absence of linear associations between the belief item categories and deservingness. Higher-order relationships (HOR) are described in the column HOR (see also table note). Interaction models were employed for the estimation tasks (Q11-Q13) and their confidence measurements (Q11c-Q13c). The table presents the main effects of over-/underestimations and their first-order interaction term with confidence in estimations (linear polynomial term '.L'). Additionally, for the full model (iv), the unweighted full model results are indicated (see table note). Consistency across models is overall satisfactory and best for Q5 (sanctions for turning down a job), Q6 (eligibility for Swiss citizens only), and Q12 (benefit overuse rate). The complete unweighted and weighted regression results are in Appendix A5 and A6.

Starting with the qualitative items Q1-Q10, model (iv) shows a significant linear trend in the orthogonal polynomial contrast for five items: Q3, Q5, Q6, Q7, Q9. This indicates a linear change in how deserving the unemployed are seen when progressing from being correct and certain (1: informed) to false and certain (5: misinformed)³⁸. As expected in H5, the results display an 'anti-welfare direction' as higher degrees of misinformedness are associated with lower perceived deservingness for most items. Most qualitative items display a significant linear association that aligns with the expectations (see H4iv, H4v, H4vii, H4xii). Q6 (eligibility for Swiss citizens only) is an exception, where the negative association contradicts H4viii. Accordingly, falsely assuming that benefits are exclusively granted to Swiss citizens does not translate into perceptions of higher financial need for the unemployed non-Swiss. Notably, for the remaining qualitative items (Q1, Q2, Q4, Q8, Q10), the analysis does not indicate a significant linear trend, contradicting hypotheses H4vi, H4xi, H4xiii, H4ix, H4x. This is surprising as the items were chosen to be logically connected to the deservingness criteria guiding the overall evaluation.

Turning next to the estimation tasks, there is no significant interaction effect of over-/underestimations and confidence in beliefs for Q13 (poverty rate beliefs). This contradicts H4iii but

³⁸ For Q3 and Q9, the results (iv) also display significant higher-order terms, indicating that the relationship between the belief variables and deservingness is more complex than linear. For Q8, only a quadratic association is shown. For Q10, model (ii) was considered for the evaluation instead of (iv) due to the lower sample size.

might be explained by over- and underestimation effects canceling each other out. In contrast, the data shows significant interaction effects for Q11 (unemployment rate; $b = -0.008$, $p = 0.036$) and Q12 (benefit overuse, $b = -0.009$, $p = 0.002$) support hypothesis H3 that the level of confidence matters for the belief-deservingness association. As confidence in beliefs increases, overestimations become increasingly negatively associated with deservingness perceptions of the unemployed. While the results align with H4ii for benefit overuse, the negative association for the unemployment rate contradicts H4i. One explanation might be that participants think of long-term unemployment when asked about the unemployment rate. Perceptions of high long-term unemployment were shown to be associated with less positive welfare attitudes (Mackonyte et al., 2015). The same might apply to deservingness evaluations, as assuming higher long-term unemployment might negatively affect the perceived future contributions.

At the same time, the data also reveals a significant main effect ($b = -0.009$, $p = 0.002$) for Q12 (benefit overuse beliefs) besides the interaction effect, which was not expected in H3. In turn, this means that overestimating benefit overuse is already negatively associated with deservingness among participants who merely guessed. This effect increases with participant's growing conviction for their estimations.

Overall, the regression results in Task I suggest that the belief-deservingness association is more nuanced than assumed. Out of the thirteen belief items included in this study, a significant linear association with deservingness perceptions is identified only for seven items. Moreover, in some instances, the associations are more complex than assumed. The seven items determined to be relevant for deservingness are beliefs on the existence of eligibility criteria (Q3), financial sanctions for job refusal (Q5), benefit eligibility for non-Swiss people (Q6), replacement rates for recipients with children (Q7), maximum benefit duration (Q9), unemployment rate (Q11), and benefit overuse (Q12). In line with expectations, most items (except Q9) are associated with deservingness in an 'anti-welfare' direction. In the next section, responses from those seven items are incorporated into an influential misinformation index. The index allows for measuring the participant's competence and exploring the potential sources of influential misinformation.

Table IV.2 Weighted Regression Models on Beliefs-Deservingness Association.

Models		(i) Single-belief ~ deservingness					(ii) Single belief + controls ~ deservingness					(iii) All beliefs ~ deservingness					(iv) All beliefs + controls ~ deservingness						
		Weighted					Weighted					Weighted					Weighted					Not Weighted	
Item	Description	Est	StdErr	p	HOR	N	Est	StdErr	p	HOR	N	Est	StdErr	p	HOR	N	Est	StdErr	p	HOR	N	LIN	HOR
Q1.L	Highest spending	0.339	0.475	0.48		1497	0.311	0.498	0.53		1226	0.152	0.480	0.75		1422	0.088	0.503	0.86		1171		
Q2.L	Lowest spending	-0.145	0.120	0.23		1501	-0.110	0.131	0.40		1229	-0.113	0.128	0.38		1422	0.017	0.141	0.90		1171		
Q3.L	Existence of eligibility rules	-0.246	0.168	0.15		1509	-0.383	0.142	0.01 **	Q ⁴⁺	1238	-0.138	0.141	0.33		1422	-0.290	0.114	0.02 *	Q ³⁺	1171		
Q4.L	Eligibility after education	0.190	0.081	0.02 *		1504	0.142	0.085	0.10 .		1233	0.157	0.074	0.04 *		1422	0.107	0.072	0.14		1171		
Q5.L	Obligations	-0.257	0.090	0.01 **	Q ⁴⁺	1501	-0.256	0.106	0.02 *	Q ⁴⁺	1232	-0.216	0.082	0.01 *		1422	-0.206	0.085	0.02 *		1171	*/-	
Q6.L	Eligibility - nationality	-0.320	0.120	0.01 **		1489	-0.265	0.116	0.02 *		1221	-0.279	0.107	0.01 *		1422	-0.241	0.105	0.03 *		1171	**/-	
Q7.L	Replacement rate - children	-0.361	0.152	0.02 *	Q ⁴⁺	1486	-0.280	0.158	0.08 .		1221	-0.381	0.159	0.02 *		1422	-0.338	0.163	0.05 *		1171		
Q8.L	Replacement rate - max	-0.054	0.093	0.57		1492	-0.021	0.103	0.84	Q ²⁺	1224	0.050	0.100	0.62		1422	0.025	0.112	0.82	Q ²⁺	1171		
Q9.L	Benefit duration max	0.098	0.087	0.26		1491	0.197	0.075	0.01 *	Q ²⁺ Q ⁴⁺	1223	0.099	0.095	0.30	Q ⁴⁺	1422	0.190	0.085	0.03 *	Q ²⁺ Q ⁴⁺	1171	./+	Q ⁴⁺
Q10.L	Social assistance	-0.408	0.212	0.06 .		535	-0.085	0.180	0.64		444												
Q11	Unemployment rate (UR)	-0.002	0.002	0.25		1504	-0.003	0.002	0.16		1231	-0.001	0.002	0.54		1422	-0.001	0.002	0.53		1171		
Q11*Q11c	Interaction UR Confidence(.L)	-0.004	0.004	0.24		1504	-0.008	0.004	0.03 *		1231	-0.007	0.004	0.07 .		1422	-0.008	0.004	0.04 *		1171		
Q12	Benefit over-use (BO)	-0.009	0.001	0.00 ***		1484	-0.009	0.002	0.00 ***		1216	-0.009	0.002	0.00 ***		1422	-0.009	0.002	0.00 ***		1171	***/-	
Q12*Q12c	Interaction BO Confidence(.L)	-0.010	0.003	0.00 **		1484	-0.010	0.003	0.00 **		1216	-0.007	0.003	0.04 *		1422	-0.009	0.003	0.00 **		1171	**/-	
Q13	Poverty rate (PR)	0.001	0.002	0.74		1491	-0.001	0.002	0.71		1223	0.0026	0.002	0.18		1422	0.001	0.002	0.50		1171		
Q13*Q13c	Interaction PR Confidence(.L)	-0.001	0.002	0.74		1491	-0.002	0.003	0.52	Q ²⁻	1223	0.002	0.003	0.45		1422	0.001	0.003	0.67	Q ²⁻	1171		Q ²⁻

Note. '***' p < .001; '**' p < 0.01; '*' p < 0.05; '.' p < 0.1 For the categorical items (Q1-Q10) and the confidence in beliefs (Q11c-Q13c), the values presented in the table refer to the results of the polynomial orthogonal contrasts regarding the linear relationship (abbreviated by .L). Significant higher order relationships are indicated in H.O.R., with Q^{2+/-} = positive/negative quadratic, C^{+/-} = pos./neg. cubic, Q^{4+/-} = pos./neg. quartic (p < 0.05). The Unweighted columns display results of the corresponding unweighted regression models, displaying linear trends (sign and significance) and H.O.R. (see Appendix AY for full unweighted results). The answers to Q10 (social assistance) were not included in (iii) and (iv) due to a lower sample size (second survey round only). Accordingly, for Q10, only (i) and (ii) are considered.

IV.5.2 Task II: Performance Standard Evaluation and Sources of Influential Misinformation

Competence Evaluation

Following the results from Table 2, responses from Q3, Q5, Q6, Q7, Q9, Q11/c, and Q12/c are incorporated into the influential misinformation index as they were significantly associated with deservingness evaluations. Following the methodology outlined in the methods section (*construction of 'misinformation index'*), the influential misinformation index thus ranges from 0 to 7. Higher scores indicate a more severe occurrence of influential misinformation and lower competence in welfare support decisions. Overall, the average influential misinformation score is low (mean = 1.76, SE = 0.04). This is good news as it implies satisfactory competence levels among the average participant. However, misinformation remains a concern, as most participants are at least somewhat misinformed, and since there is a non-negligible share of participants with moderate to higher misinformation scores (15.3% have a score higher than three).

Potential Sources of Influential Misinformation

Table 3 presents the results of the weighted regression models investigating the potential sources of influential misinformation by using the influential misinformation index as a dependent variable (for all results, see Appendix A7). The different explanatory frameworks mentioned in the theory section are introduced in individual models: (i) individual-level characteristics, (ii) engagement with socialization agents, (iii) directional motives (political orientation), and (iv) contact with unemployed people. Model (v) presents the full model. Ordinal predictors are introduced into the regressions via orthogonal polynomial contrasts, robust standard errors are used where possible, and unweighted regression trends are shown for the full model (column NW).

Model (v) reveals that only a subset of predictors are significantly associated with the influential misinformation score. Starting with the individual-level characteristics, significant associations are only visible for the level of formal education ($b = -0.17$, $p = 0.015$), Swiss nationality ($b = -0.27$, $p = 0.004$), and age ($b = -0.10$, $p = 0.048$). In all cases, the associations align with expectations (H6i, H6ii, H6iv). No significant association is visible for gender and interest in politics and social policy, contradicting H6v and H6iii.

Continuing with the socialization agents, only the frequency of talking to parents is significantly associated with the amount of influential misinformation. However, model (v) does not indicate a linear relationship but a positive quadratic one ($b = 0.17$, $p = 0.050$). This means some engagement with parents is associated with less misinformation than not engaging at all. However, this changes again for those who frequently talk about politics with their parents. Support for this claim is visible when comparing the mean of influential misinformation across different

engagement levels. Misinformation scores are highest for those who talk (nearly) daily about politics with their parents (mean=2.92, SE=0.19) and those who never talk to their parents about politics (mean=2.80, SE=0.11). Means are lower for students talking to their parents about politics (nearly) monthly (mean=2.56, SE=0.11) and lowest for those who do it weekly (mean=2.49, SE=0.12). Interestingly, there is no significant association visible for the other socialization agents (internet³⁹, peers, school lessons), contradicting H8. The same is true for having had contact with unemployed people, contradicting H7.

Lastly, model (v) shows the expected significant association between being more politically right and higher influential misinformation scores ($b=0.03$, $p=0.008$), supporting H5ii. Considering that the data also provides evidence supporting H5i (overestimations increase with the level of confidence), this suggests that directional motives could already be an important factor for younger people.

³⁹ Conclusions about a missing association between the internet (e.g., social media) and influential misinformation should not be overstated, considering that the item used in the survey only asks for the frequency of searching for political information on the internet. In turn, this differs from being exposed (e.g., passively) to political information on social media (Nanz & Matthes, 2020, 2022). The latter is, however, likely via Instagram reels or TikTok feeds (Tucker, 2022).

Table IV.3 Weighted Regression Models on the Potential Sources of Influential Misinformation.

Models		(i) Individual level charact. ~ influential misinfo index					(ii) Engagement with soc. agents ~ influential misinfo index					(iii) Directional motives ~ influential misinfo index					(iv) Contact with unempl. ~ influential misinfo index					(v) Full model ~ influential misinfo index						
		Weighted					Weighted					Weighted					Weighted					NW						
Items	Description	Est	StdErr	p	N	Est	StdErr	p	N	Est	StdErr	p	N	Est	StdErr	p	N	Est	StdErr	p	N							
Intercept	Intercept	3.36	0.68	0.00	***	1397	1.84	0.06	0.00	***	1399	1.59	0.09	0.00	***	1304	1.73	0.06	0.00	***	1414	3.53	0.67	0.00	***	1242	***/+	
Gender	Gender (Male)	0.06	0.07	0.38		1397																						
	Gender (Diverse)	0.01	0.23	0.97		1397																						
Edu	Level of formal education (binary)	-0.23	0.07	0.00	***	1397																						
IntSoc	Interest in social policy	-0.11	0.07	0.11		1397																						
IntPol	Interest in politics	0.02	0.05	0.70		1397																						
Nationality	Swiss	-0.22	0.08	0.01	**																							
Age	Age	-0.08	0.05	0.10																								
Internet	Engagement Internet.L						0.03	0.11	0.77																			
	Engagement Internet.Q						-0.01	0.09	0.93																			
	Engagement Internet.C						0.05	0.07	0.47																			
Parents	Engagement Parents.L						-0.07	0.12	0.58																			
	Engagement Parents.Q						0.20	0.08	0.02	*																		
	Engagement Parents.C						0.02	0.06	0.69																			
Friends	Engagement Friends.L						0.14	0.13	0.27																			
	Engagement Friends.Q						0.08	0.09	0.34																			
	Engagement Friends.C						0.08	0.07	0.27																			
School	Engagement School.L						0.17	0.14	0.23																			
	Engagement School.Q						0.04	0.10	0.69																			
	Engagement School.C						0.00	0.07	0.99																			
Left-right	Political orientation (scale)																											
Cwun	Contact with unempl. (Yes)																											
	Contact with unempl. (Don't tell)																											

Note. '****' p < 0.001; '***' p < 0.01; '**' p < 0.05; '*' p < 0.1. 'L' linear polynomial orthogonal contrast; 'Q' quadratic; 'C' cubic. Reference category for gender: female. Reference category for contact with unemployed: no. 'NW' unweighted full model (v) results: estimate sign and significance level (for all unweighted results see Appendix A7).

IV.6 Discussion and Conclusion

This paper began with the argument that fostering young people's political competence is crucial and best achieved by focusing on one relevant political task at a time. Following this logic, a competence criterion for welfare support decisions was defined, positing that these decisions are strongly based on deservingness evaluations and can be deemed competent if people's deservingness evaluations are not based on misinformation. The performance standard is defined as the amount of influential misinformation, that is, misinformation associated with deservingness perceptions. Applying this standard, the study reveals that the average participants displayed satisfactory competence levels when evaluating the deservingness of the unemployed and, by extension, in their welfare support decisions. Although informedness on unemployment-related matters could be higher, most participants are not misinformed on multiple items that could compromise their deservingness judgments.

While these findings are good news and support recent claims that young people have valuable social policy preferences (see also Sowula, 2024a), there are also points of concern. Most participants are at least somewhat misinformed, and in several instances, misinformation is (negatively) associated with how deserving the participants perceive the unemployed. Moreover, the more confidently participants hold (false) beliefs, the stronger the effect of the associations. Considering that the study's results suggest directional motives as a source of influential misinformation, this is concerning news as influential misinformation could become a greater problem in the future should the participants become more convinced of their politically oriented beliefs. The latter is not unlikely, as young people are assumed to be more politically open than adults (Neundorf & Smets, 2017 for a review).

Moreover, the study reveals interesting insights about beliefs on benefit overuse. In addition to the interaction effect of confidently overestimating benefit overuse, a negative association between overestimation and deservingness exists already for those who have merely guessed. While this might stem from difficulties in measuring confidence in beliefs (Graham, 2023), this more likely indicates a special role of benefit overuse beliefs as these trends are not mirrored in the other estimation items. If true, the positive competence assessment of youth might need reconsideration, and particular focus should be given to tackling false beliefs on benefit overuse. Ultimately, overestimating benefit overuse might not just be the *Achilles heel of welfare state legitimacy* (Roosma et al., 2016) but also the *Achilles heel of welfare deservingness*, seriously affecting how we think about who should get what and why.

However, more research is needed to make a final decision on what beliefs matter for deservingness. While focusing on beliefs logically connected to the deservingness criteria helped identify relevant beliefs, half of the investigated beliefs were not associated with deservingness. One explanation might lie in how cognitively demanding questions are as items on more

abstract quantities (e.g., social security spending areas, replacement rates percentages) were less often associated with deservingness. On the other hand, associations were more often present for simpler aspects of benefit design (e.g., eligibility rules, coverage, sanctions, generosity when having children) and outcomes (unemployment rate, benefit overuse), mirroring to some extent results from adult-centered studies (e.g., Geiger, 2017). Scholars should further investigate the exact patterns of what beliefs might impact deservingness and include measurements of confidence in beliefs when pursuing this path. Doing so in this study revealed important insights about the potentially special role of benefit overuse beliefs and demonstrated that confidence in (false) beliefs can matter for deservingness opinions. In light of increasing misinformation and disinformation, intensifying research on confidently holding false beliefs seems warranted (see also Jerit & Zhao, 2020; Kuklinski et al., 2000).

Coming back to the goal of fostering young people's competencies in welfare support decisions, the conclusion is that this requires addressing the influential misinformation detected in this study. However, considering the potential sources of influential misinformation, this endeavor is challenging for three reasons. First, the results suggest the presence of directional motives already among younger people. This is problematic as ideological reasoning might hinder successful corrections (Lawrence & Sides, 2014; Nyhan & Reifler, 2010). Second, the results reveal a complex pattern regarding parental influence. Misinformation is highest for those students who never or daily discuss political topics with their parents and lowest for those who do so occasionally. One explanation might be that in highly politicized families where the parents frequently provide cues, this does not only lead to the transmission of political orientations (Jennings et al., 2009) but also political misinformation. Future research should follow up on this as this might explain the origin of directional motives among young people. Third, talking more frequently about political topics does not seem to be a mitigating factor for influential misinformation⁴⁰. This is problematic as schools and civic education are considered important actors in the *making of citizens* (Neundorf & Smets, 2017).

There is great potential for schools and civic education to play a decisive role in tackling and preventing welfare-state-related misinformation (see also Sowula, 2024b). One way would be to strengthen integrative measures between Swiss and non-Swiss students to alleviate the identified misinformation gap (e.g., Adman & Strömblad, 2018). A second, more direct way would be focusing on educational interventions, which ideally could result in spill-over effects from students to their homes (McDevitt & Chaffee, 2000). However, this requires the development of well-designed and effective learning arrangements. A good strategy includes i) adequately integrating *relevant* information about basic principles of unemployment insurance and

⁴⁰ This is insofar not surprising as the political education guidelines in the Swiss-German curriculum are very generalized ('political education as interdisciplinary principle'), and addressing (political) misinformation is not mentioned in the curriculum (D-EDK, 2016).

system effectiveness (especially in terms of benefit overuse) into learning arrangements, ii) dealing with existing misinformation by following *debunking* strategies (Lewandowsky et al., 2020), and, iii) prepare students to detect false information ‘before’ they are misinformed (see *prebunking*: Lewandowsky & van der Linden, 2021, S. 356). Since the share of uninformed participants was higher than the share of misinformed participants for most items, *prebunking* could be particularly promising. *Prebunking* could also help with directional motives, as it was shown to work across different political ideologies (Roozenbeek et al., 2020). Future studies should thus follow up on the initial successes of *prebunking* interventions in classrooms (Axelsson et al., 2024).

While implementing these recommendations could foster youths’ competence development in welfare support decisions, further research is needed to address the limitations of this study. This includes its limited geographical scope, its cross-sectional design, and its sole focus on the unemployed. To increase the generalizability and robustness of results, future studies should expand to wider geographical regions within and beyond Switzerland, employ experimental approaches to better disentangle causality between beliefs and deservingness, and explore the belief-deservingness link for other target groups. In particular research on more deserving groups might reveal interesting insights. For example, misinformation might not always be associated with more negative views on deservingness. Evaluations of the sick as a highly deserving target group are likely based on misinformation that all health problems are randomly distributed (see Jensen & Petersen, 2017).

Finally, with the goal of fostering youth’s political competence in mind, scholarly and educational efforts should extend beyond welfare support decisions to other important political tasks. This requires following the transparent and evidence-based approach advocated for in Lupia (2016) and this study. Only by incrementally increasing our knowledge of political competence will young people have the perfect conditions to make full use of the *currency of democratic citizenship* without being distracted by potential *play money* and *counterfeit*.

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Ethics Statement

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V. Literature

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VI. Appendices

VI.1 Appendix Paper 2: Deservingness and Welfare Attitudes Through Young Eyes: The Future of the Swiss Welfare State

VI.1.1 A1: Summary Statistics

Deservingness items																																				
Primary Target Group level	Weight. Mean					Weight. Stand. Dev.					Weight. Median					Min	Max	Valid N					Exp.	Sample	Answer											
Overall Deservingness:																																				
- elderly	3.88					0.89					4					1	5	1580						All cantons	1 to 5 (not deserving at all; fully deserving)											
- sick	4.21					0.91					4					1	5	1581																		
- disabled	4.28					0.92					5					1	5	1580																		
- families	4.02					0.90					4					1	5	1580																		
- unemployed	3.46					0.88					4					1	5	1585																		
- social assistance recipients	3.57					0.86					4					1	5	1575																		
Secondary target group level (groups of unemployed)	Weight. Mean					Weight. Stand. Dev.					Weight. Median					Min	Max	Valid N					Exp.	Sample	Answer											
Deservingness criteria:																																				
- control ^R	I	II	III	IV	V	ESS(I)	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V					
- attitude ^R	3.05	2.94	3.30	3.06	3.51	3.24	1.01	1.12	1.08	1.11	1.11	3	3	3	3	4	1	1	1	1	1	1	1	5	5	5	5	5	394	304	291	282	314			
- reciprocity past	3.37	3.09	3.39	3.12	3.34		1.04	1.05	0.96	1.12	1.10	4	3	4	3	3	1	1	1	1	1	1	1	5	5	5	5	5	395	305	291	284	315	Yes	All cantons	1 to 5 (do not agree at all; fully agree)
- reciprocity future ^R	3.43	3.25	3.78	3.28	3.26		0.85	0.94	0.86	0.91	0.95	4	3	4	3	3	1	1	1	1	1	1	1	5	5	5	5	5	394	304	289	282	314			
- identity	3.24	3.09	3.05	3.32	3.35		1.05	1.06	1.13	1.07	1.05	3	3	3	4	4	1	1	1	1	1	1	1	5	5	5	5	5	394	304	291	280	315			
- need	3.08	2.87	3.10	2.82	2.98		1.00	1.03	0.92	0.89	0.97	3	3	3	3	3	1	1	1	1	1	1	1	5	5	5	5	5	393	304	290	282	314			
- need	2.99	2.89	2.75	2.75	2.79		1.02	1.05	1.00	1.04	0.94	3	3	3	3	3	1	1	1	1	1	1	1	5	5	5	5	5	394	303	289	282	315			
Overall Deservingness	3.58	3.45	3.62	3.47	3.50		0.717	0.7462	0.79	0.75	0.83	4	3	4	4	3	1	1	1	1	1	1	1	5	5	5	5	5	394	306	292	286	312	Yes	All cantons	1 to 5 (not deserving at all; fully deserving)
Unrelated to target groups	Weight. Mean					Weight. Stand. Dev.					Weight. Median					Min	Max	Valid N					Exp.	Sample	Answer											
General deservingness principles																																				
- control	3.72					1.03					4					1	5	540																		
- attitude	3.57					1.03					4					1	5	539						2nd data collection round	1 to 5 (do not agree at all; fully agree)											
- reciprocity	3.61					0.88					4					1	5	537																		
- identity	2.85					1.08					3					1	5	540																		
- need	4.16					0.87					4					1	5	539																		
Generosity:																																				
- replacement rate	I	II	III	IV	V		I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V					
- unemployment benefit duration	52.6	49.5	53.0	50.2	53.2		19.4	19.3	18.4	20.2	17.9	50	50	50	50	50	0	9	0	0	0	100	100	100	100	100	100	394	304	289	283	309	Yes	All cantons	0-100 (scale)	
- unemployment benefit duration	15.5	14.5	16.1	15.6	13.5		12.5	14.2	18.1	14.0	12.6	12	12	12	12	12	1	0	0	0	0	120	120	156	150	122	361	280	270	272	292	Yes	All cantons	open answer		
Obligations (benefit cuts for job refusal reasons):	Weight. Proportions					Weight. Median					Min	Max	Valid N					Exp.	Sample	Answer																
1: Loose all	I	II	III	IV	V	ESS(I)	ESS(II) ^a	ESS(III) ^a																												
- don't want to move ^R	0.07	0.09	0.09	0.09	0.05				I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V								
2: Loose half	0.21	0.18	0.17	0.17	0.17				3	3	4	3	3	1	1	1	1	1	1	1	4	4	4	4	4	4	4	4	390	301	285	280	308			
3: Loose small part	0.27	0.29	0.23	0.30	0.36																															
4: Keep all	0.44	0.44	0.51	0.45	0.42																															
1: Loose all	0.10	0.10	0.08	0.16	0.08	0.13	0.12	0.11																												
- worse paid job ^R	0.29	0.28	0.25	0.22	0.32	0.27	0.26	0.24	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V								
2: Loose half	0.47	0.41	0.49	0.44	0.44	0.46	0.48	0.48	3	3	3	3	3	1	1	1	1	1	1	1	4	4	4	4	4	4	4	4	392	302	286	280	306	Yes	All cantons	1 to 4 (see categories on the left)
3: Loose small part	0.15	0.21	0.17	0.18	0.17	0.15	0.14	0.17																												
4: Keep all	0.11	0.11	0.09	0.10	0.08	0.15	0.13	0.12																												
1: Loose all	0.26	0.28	0.29	0.27	0.24	0.26	0.28	0.25	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V								
- job requires lower educational level ^R	0.40	0.42	0.38	0.40	0.39	0.39	0.41	0.45	3	3	3	3	3	1	1	1	1	1	1	1	4	4	4	4	4	4	4	4	390	302	284	275	308			
2: Loose half	0.23	0.20	0.25	0.24	0.29	0.19	0.19	0.18																												
3: Loose small part	0.08	0.05	0.11	0.09	0.07	0.03																														
- Social investment: cuts in unemployment benefits to increase spending on training/education	0.31	0.36	0.43	0.34	0.28	0.29	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V					
2: Against	0.55	0.51	0.38	0.51	0.55	0.61	3	3	2	3	3	1	1	1	1	1	1	1	4	4	4	4	4	4	4	4	391	295	284	281	307	Yes	All cantons	1 to 4 (see categories on the left)		
3: In favour	0.06	0.08	0.08	0.06	0.10	0.08																														
4: Strongly in																																				

Controls																			
<i>Personal controls</i>		<i>Weight. Mean</i>		<i>Weight. Stand. Dev.</i>		<i>Weight. Median</i>		<i>Min</i>		<i>Max</i>		<i>Valid N</i>		<i>Exp. Sample</i>		<i>Answer</i>			
Age		14.60		0.82		15		13		18		1601		No		All cantons		Age coded	
<i>Personal controls</i>		<i>Weight. Proportions</i>										<i>Valid N</i>		<i>Exp. Sample</i>		<i>Answer</i>			
Swiss nationality		Yes		0.77								1601		No		All cantons		Nationality coded	
EU nationality		Yes		0.21								1601		No		All cantons		Nationality coded	
Gender		Female		0.47								1601		No		All cantons		see categories on the left	
		Male		0.50															
		Diverse		0.03															
<i>Political Ideology and Values</i>		<i>Weight. Mean</i>		<i>Weight. Stand. Dev.</i>		<i>Weight. Median</i>		<i>Min</i>		<i>Max</i>		<i>Valid N</i>		<i>Exp. Sample</i>		<i>Answer</i>			
Left-Right		4.71 5.03 ESS		2.68		5		0		10		1417		No		All cantons		0 to 10 (0 left, 10 right)	
Egalitarian Values		3.12 3.56 ESS		0.94		3		1		5		1559		No		All cantons		1 to 5 (Disagree strongly; agree strongly)	
<i>Highest Education Parents</i>		<i>Weight. Proportions</i>										<i>Valid N</i>		<i>Exp. Sample</i>		<i>Answer</i>			
Highest Education		Obligatory school		0.06								1554		No		All cantons		see categories on the left	
		Vocational school ²		0.23															
		Grammar School /		0.08															
		Higher Vocational		0.23															
		University ²		0.21															
		Other ²		0.05															
		Don't know ²		0.15															
<i>Self-Interest</i>		<i>Weight. Mean</i>		<i>Weight. Stand. Dev.</i>		<i>Weight. Median</i>		<i>Min</i>		<i>Max</i>		<i>Valid N</i>		<i>Exp. Sample</i>		<i>Answer</i>			
Self-assessment job prospect		3.93		0.94		4		1		5		1560		No		All cantons		1 to 5 (very unlikely; very likely)	
Perceived socio-economic status of family		6.78		2.12		7		0		10		1487		No		All cantons		0 to 10 (0 worst off, 10 best off)	
Hisei Parents		60.92		19.12		68.70		14.64		88.96		917		No		All cantons		11.56 to 88.96	
<i>Contact with unemployed</i>		<i>Weight. Proportions</i>										<i>Valid N</i>		<i>Exp. Sample</i>		<i>Answer</i>			
Contact with unemployed		No		0.41								1546		No		All cantons		see categories on the left	
		Yes		0.47															
		Don't tell		0.12															
<i>Performance Evaluations</i>		<i>Weight. Mean</i>		<i>Weight. Stand. Dev.</i>		<i>Weight. Median</i>		<i>Min</i>		<i>Max</i>		<i>Valid N</i>		<i>Exp. Sample</i>		<i>Answer</i>			
Performance Evaluations		I II III IV V ESS(I)		I II III IV V		I II III IV V		I II III IV V		I II III IV V		I II III IV V		I II III IV V		I II III IV V		I II III IV V	
		4.37 5.02 5.36 5.19 5.19 5.14		1.881 2.046 1.85 2.03 1.71		4 5 5 5 5		1 1 1 1 1		10 10 10 10 10		395 304 291 285 311		Yes		All cantons		0 to 10 (extremely bad; extremely good)	

Note: Exp = experimentally modified (one unemployed condition per participant). The following conditions were used: I: Control (Unemployed); II: Younger Unemployed (<30); III: Older unemployed (>55); IV: Swiss unemployed; V: EU unemployed. R = reversed to ensure consistency (i.e., higher scores indicate more deserving). Bullet points represent single questions or sub-questions. ESS refers to the Swiss sample of the ESS. All ESS items refer to the ESS 2016 sample, except the role of government job item, which was asked only in the ESS 2008 sample (weights used: anweight).
^a The ESS vignette for young unemployed people (II) refers to those under 20 and that for older unemployed to people over 50 (III).

VI.1.2 A2: Survey Items Used (Translated and in the Order They Appear in the Article)⁴¹

Overall Deservingness of Primary Target Groups (H2, H3)

○ Overall Deservingness Primary Target Groups (OD_{prim})

For each of the following groups, indicate the extent to which they deserve to receive social welfare from the government.

1) Unemployed
2) Sick
3) The elderly (pensioners)
4) People with disabilities
5) Families with kids
6) Social assistance recipients

Answer options: Do not deserve it at all/ Do not deserve it/ Undecided/ Deserve it/ Fully deserve it

○ General Deservingness Principles (GD)

Now we are talking more generally about when people should receive social benefits and services. By social benefits and services, we mean things like pensions, health care, unemployment benefits, or social assistance. Indicate how much you agree or disagree with the following sentences: People should receive social benefits and services when they ...

Control	1) have not caused their problems.
Attitude	2) are grateful for the help.
Reciprocity	3) have contributed or will contribute to public prosperity in their life.
Identity	5) are close to me (e.g., same country of birth, kinship, culture, etc.).
Need	6) are in real need (e.g., financially).

Answer options ranged from "Do not agree at all" (1) to "Fully agree" (5).

Secondary Target Group Level: Deservingness of Different Groups of Unemployed (H4, H5)

○ Overall Deservingness Secondary Target Group (Unemployed Groups) (OD_{sec})⁴²

What would you say: To what extent do most [unemployed people/ younger unemployed [unemployed people// younger unemployed (under 30)// older unemployed (over 55)// unemployed with a Swiss passport// unemployed with a passport from an EU country] deserve to receive social welfare from the government?

Answer options^{Reversed}: Do not deserve it at all/ Do not deserve it/ Undecided/ Deserve it/ Fully deserve it.

○ CARIN Criteria Secondary Target Group (Unemployed Groups) (DC)

Below are a few statements about [unemployed people// younger unemployed people. By younger unemployed people, we mean unemployed people who are under 30 years old// older unemployed people. By older unemployed people, we mean unemployed people who are over 55 years old// unemployed people with a Swiss passport// people who have moved to Switzerland from a country in the European Union (EU) and are now unemployed.]. For each statement, indicate how much you agree or do not agree with it.

Attitude	1) Most [unemployed people// younger unemployed (under 30)// older unemployed (over 55)// unemployed with a Swiss passport// unemployed with a passport from an EU country] are not grateful enough for government support and do not appreciate it enough
Identity	2) I personally sympathise with the fate of [experimental group]. (cf. Kootstra, 2017)
Reciprocity Future	3) Most [exp. group] don't really try to find a job. (see ESS Round 8)
Reciprocity Past	4) Most [exp. group] have already contributed to society before they became unemployed.
Control	5) Most [exp. group] are to blame themselves for being unemployed.
Need	6) Most [exp. group] live in immediate need (e.g., financial).

Answer options: Do not agree at all/ do not agree/ neither nor/ agree/ fully agree.

⁴¹ Literal translations have been used where appropriate. Otherwise, translations capturing the meaning of the question were used. Accordingly, small deviations from the original are possible. For original questions (in German), please contact the corresponding author.

⁴² OD_{sec} was asked after DC in the survey.

Deservingness as a Predictor of Welfare Attitudes on Social Rights (H1a)

- Role of Government (*RgLS*, *RgJob*) - adapted from ESS round 4 (2008), ESS round 8 (2016)

To what extent should it be the government's responsibility to ...

Living Standard	1) ...ensure a reasonable standard of living for [unemployed people// younger unemployed (under 30)// older unemployed (over 55)// unemployed with a Swiss passport// unemployed with a passport from an EU country]?
-----------------	---

Job	2) ... ensure a job for [experimental group]?
-----	---

Answer options ranged from "No responsibility at all" (0) to "Full responsibility" (10).

- Unemployment Benefit Duration (*Dur*):

Now imagine an [unemployed person who receives unemployment benefits// younger unemployed person (under 30) who receives unemployment benefits// older unemployed person (over 55) who receives unemployment benefits// unemployed person with a Swiss passport who receives unemployment benefits// person who has moved to Switzerland from a country in the European Union (EU) and is now unemployed and receives unemployment benefits]. What do you think? What should be the maximum period (in months) for which this person should receive unemployment benefits?

Open answer.

- Unemployment Benefit Replacement Rate (*RR*)

Next, it is about the amount of unemployment benefit this person should receive. The amount depends mainly on the person's last wage before becoming unemployed. What would you say: What percentage of their last wage should an [unemployed person// younger unemployed person (under 30)// older unemployed person (over 55) // unemployed person with a Swiss passport// unemployed person with a passport from an EU country] receive when getting unemployment benefits?

Answer options: 0-100 (scale)

Deservingness Opinions as a Predictor of Welfare Attitudes Towards Social Obligations (H1b)

- Social Obligations (*ObPay*, *ObEdu*, *ObMove*) - adapted from ESS Round 8:

Imagine [a person who is unemployed// a person under 30 who is unemployed// a person over 55 who is unemployed// a person with a Swiss passport who is unemployed// a person with a passport from an EU country who lives in Switzerland, is unemployed] and looking for work. This person was previously working but lost their job and is now receiving unemployment benefits. What do you think should happen to this person's unemployment benefit if...

Pay	1) ...they turn down a job because it pays a lot less than they earned previously?
-----	--

Education	2) ...they turn down a job because it needs a much lower level of education than the person has?
-----------	--

Move	3) ...they turn down a job because it requires the person to move?
------	--

Answer options: This person should lose all their unemployment benefit/ lose about half of their unemployment benefit/ lose a small part of their unemployment benefit/ should be able to keep all their unemployment benefit.

- Social Investment (*SI*) - adapted from ESS Round 8:

What would you say: Should the government spend more on education and training programs for [unemployed people/ younger unemployed [unemployed people// younger unemployed (under 30)// older unemployed (over 55)// unemployed with a Swiss passport// unemployed with a passport from an EU country] at the cost of reducing unemployment benefit?

Answer options: Strongly against (cutting unemployment benefits in order to spend more on education and training)/ Against (cutting unemployment benefits in order to spend more on education and training)/ In favour (cutting unemployment benefits in order to spend more on education and training)/ Strongly in favour (cutting unemployment benefits in order to spend more on education and training)

Control Items Used in the Regression Models

- Experimental condition: Baseline/ Younger unemployed (<30)/ Older unemployed (>55)/ Unemployed with a Swiss passport/ Unemployed living in Switzerland and holding a passport from an EU country.

- Age:

How old are you?

Answer options: 13/ 14/ 15/ 16/ 17/ other.

- Nationality:

What is your nationality?

Multiple answers are possible

Answer options: multiple country options and one open answer field for other countries.

- Gender

You are ...

Answer options: Male/ female/ diverse/ prefer not to say

- Left-Right – adapted from ESS Round 8:

In politics, people sometimes talk about “left” and “right. Where would you classify yourself if 0 stands for left and 10 for right?

Answer options: 0 – left, 10 – right (scale)

- Egalitarian Values:

And to what extent do you agree or disagree with this statement: “For a society to be fair, differences in people’s standard of living should be small.”

Answer options: Do not agree at all/ do not agree/ neither nor/ agree/ fully agree

- Highest Education Parents:

The variable measures the highest level of educational attainment achieved by either parent. It is obtained through two individual items. The rationale for combining the variables was to minimize potential collinearity and increase efficiency in analyses. In all cases, the most informative and precise measure of educational attainment available was used (answer options 1 to 5) as they offer a more nuanced understanding of education levels, which can be essential for policy-relevant research. The categories labeled 6 and 7 are seen as less precise and thus are only used when more informative categories are not available for either parent. This approach enhances the quality and reliability of the dataset for rigorous, empirical analyses:

What is the highest education your father/mother has completed? (two individual questions)

If you have no/very little contact with your biological parents, please answer the question for the person who is like a father/mother to you.

Answer options: Mandatory schooling/ Vocational training or full-time vocational school/ Matura school; seminar for teachers/ Higher technical and vocational education/ University/ Other/ Don’t know

○ Highest Occupation Parents:

The variable measures the highest occupational level (ISEI 08) of either parent. The variable is translated from ISCO 08 via the “ISCO08ConveRsions” package. The rationale for combining the variables was to minimize potential collinearity and increase efficiency in analyses:

And what is your mother's/father's job/occupation? (two individual questions)

If you have no/very little contact with your biological parents, please answer the question for the person who is like a father/mother to you.

Answer options: Open.

○ Self-Assessment of Job Prospects:

And what would you say: How likely will you find a steady job after your education?

Answer options: Very unlikely/ unlikely/ neither nor/ likely/ very likely

○ Self-Assessment Socioeconomic Position of the Family:

In our society, some groups are better off than others. Below, you see a scale that goes from “0 - worst off” to “10 - best off”. Where on this scale would you place yourself and your family?

Answer options: 0 – worst off; 10 – best off (scale).

○ Contact to Unemployed People:

I have or have had contact with unemployed people in my family, friends or acquaintances.

Answer options: Yes/ no/ prefer not to say.

○ Performance Evaluations (experimentally modified), see ESS round 8 (2016):

What do you think overall about the standard of living of [unemployed people/ younger unemployed [unemployed people// younger unemployed (under 30)// older unemployed (over 55)// unemployed with a Swiss passport// unemployed with a passport from an EU country]?

Answer options: 0 – extremely bad; 10 – extremely good (scale).

VI.1.3 A3: Results of the Regression Models (Deservingness -> Social Rights)

Dependent Variable: Replacement Rate [Experimentally modified]		Independent Variable: Overall Deservingness [Experimentally modified]																			
Models	Baseline Model									Full Model											
	Unweighted (1a)			Weighted (2a)			Weighted & Imputed (3a)			Unweighted (1b)			Weighted (2b)			Weighted & Imputed (3b)			Weighted & Imputed (3c)		
Variables	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value
Intercept	38.95	2.58	0.000 ***	40.21	3.17	0.000 ***	40.33	3.14	0.000 ***	23.03	11.08	0.038 *	24.09	12.14	0.050 .	32.60	12.20	0.008 **	32.11	12.13	0.008 **
Deservingness Variables																					
Deservingness (Overall)	4.00	0.65	0.000 ***	3.45	0.79	0.000 ***	3.41	0.78	0.000 ***	3.07	0.70	0.000 ***	2.53	0.79	0.002 **	2.91	0.74	0.000 ***	2.91	0.74	0.000 ***
Condition																					
Cond (<25) ⁵	-2.46	1.45	0.090 .	-2.82	2.09	0.182	-2.62	2.10	0.211	-3.28	1.60	0.041 *	-4.20	2.21	0.061 .	-3.31	2.04	0.105	-3.31	2.04	0.105
Cond (>55) ⁵	0.63	1.45	0.666	0.23	1.77	0.896	0.22	1.78	0.900	-0.29	1.65	0.862	-1.46	1.90	0.445	-1.31	1.74	0.450	-1.30	1.73	0.452
Cond (Swiss) ⁵	-2.81	1.55	0.069 .	-1.96	2.38	0.411	-2.09	2.38	0.380	-3.61	1.67	0.031 *	-3.77	2.47	0.131	-3.60	2.35	0.125	-3.60	2.35	0.126
Cond (EU) ⁵	-0.14	1.41	0.922	0.84	1.85	0.650	0.79	1.85	0.668	-2.70	1.53	0.077 .	-1.95	1.87	0.298	-1.08	1.63	0.508	-1.08	1.63	0.508
Personal controls																					
Age										-0.27	0.64	0.681	-0.31	0.70	0.657	-0.85	0.68	0.214	-0.85	0.68	0.213
Swiss nationality										-0.75	1.42	0.596	-1.10	1.53	0.473	0.15	1.47	0.917	0.04	1.49	0.977
Eu nationality										1.04	1.32	0.427	2.57	1.47	0.083 .	1.34	1.23	0.275	1.29	1.23	0.294
Gender (male) ¹										-0.52	1.05	0.620	-0.69	1.22	0.576	-0.72	1.19	0.544	-0.72	1.19	0.542
Gender (diverse) ¹										4.71	4.78	0.325	6.09	4.12	0.143	1.62	4.12	0.694	1.58	4.13	0.703
Political Ideology and Values																					
Left-Right										-0.50	0.22	0.024 *	-0.32	0.25	0.205	-0.35	0.25	0.173	-0.34	0.25	0.181
Egalitarian Values										1.61	0.57	0.005 **	1.34	0.83	0.112	0.81	0.80	0.307	0.81	0.79	0.308
Highest Education Parents																					
Vocational school ²										2.80	2.72	0.303	1.54	3.22	0.634	3.11	2.70	0.250	3.10	2.70	0.251
Grammar School / teacher seminar ²										2.88	3.00	0.337	1.03	3.46	0.768	2.01	2.84	0.480	1.81	2.87	0.529
Higher Vocational training ²										2.71	2.72	0.319	1.52	3.26	0.641	2.50	2.80	0.370	2.30	2.84	0.419
University ²										2.61	2.70	0.334	1.22	2.93	0.679	2.35	2.54	0.354	2.03	2.76	0.461
Other ²										3.36	3.74	0.368	3.69	4.20	0.382	3.49	3.66	0.340	3.40	3.70	0.357
Don't know ²										0.88	2.97	0.766	-0.70	4.18	0.868	0.55	3.38	0.870	0.47	3.39	0.889
Self-interest																					
Self-assessment job prospect										2.13	0.59	0.000 ***	1.68	0.56	0.003 **	1.55	0.53	0.004 **	1.55	0.54	0.004 **
Perceived socio-economic status of family										0.40	0.31	0.197	0.80	0.34	0.021 *	0.69	0.31	0.028 *	0.68	0.31	0.029 *
Hisei Parents ⁴																			0.01	0.04	0.751
Contact with unemployed																					
Contact with unemployed (yes) ³										3.32	1.11	0.003 **	5.48	1.48	0.000 ***	4.03	1.39	0.004 **	4.04	1.41	0.004 **
Contact with unemployed (don't tell) ³										-1.24	1.84	0.501	0.13	2.69	0.960	0.69	2.27	0.762	0.67	2.26	0.766
Performance Evaluations																					
Performance Evaluation [Experimentally modified]										1.42	0.32	0.000 ***	1.51	0.41	0.000 ***	1.42	0.39	0.000 ***	1.41	0.39	0.000 ***
Observations	1574			1574			Pooled (100 datasets, controls imputed)			1288			1288			Pooled (100 datasets, controls imputed)			Pooled (100 datasets, controls imputed)		

Dependent Variable: Replacement Rate [Experimentally modified]

Independent Variable: CARIN-criteria Deservingness [Experimentally modified]

Models	Baseline Model									Full Model											
	Unweighted (1a)			Weighted (2a)			Weighted & Imputed (3a)			Unweighted (1b)			Weighted (2b)			Weighted & Imputed (3b)			Weighted & Imputed (3c)		
	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value
Intercept	31.31	3.52	0.000 ***	31.85	3.79	0.000 ***	31.89	3.85	0.000 ***	18.49	11.56	0.110	17.54	12.02	0.148	24.99	11.84	0.035 *	24.84	11.87	0.036 *
Deservingness Variables																					
Control	2.15	0.49	0.000 ***	1.70	0.52	0.002 **	1.73	0.52	0.001 ***	1.70	0.51	0.001 ***	1.19	0.48	0.016 *	1.52	0.46	0.001 ***	1.52	0.46	0.001 ***
Attitude	0.84	0.49	0.088 .	0.39	0.57	0.491	0.27	0.62	0.661	1.00	0.53	0.059 .	0.70	0.53	0.193	0.47	0.55	0.390	0.47	0.55	0.389
Reciprocity Past	1.85	0.56	0.001 ***	2.24	0.65	0.001 ***	2.11	0.66	0.001 **	1.36	0.58	0.019 *	2.23	0.62	0.001 ***	1.88	0.64	0.003 **	1.88	0.63	0.003 **
Reciprocity Future	1.67	0.49	0.001 ***	2.25	0.56	0.000 ***	2.24	0.56	0.000 ***	1.57	0.50	0.002 **	2.04	0.61	0.001 **	2.06	0.53	0.000 ***	2.06	0.53	0.000 ***
Identity	0.53	0.53	0.310	0.29	0.64	0.647	0.38	0.63	0.548	0.00	0.56	0.998	-0.15	0.71	0.834	0.13	0.57	0.816	0.13	0.57	0.816
Need	-0.35	0.50	0.490	-0.55	0.74	0.458	-0.41	0.74	0.581	-0.33	0.55	0.555	-0.53	0.82	0.520	0.07	0.67	0.913	0.07	0.67	0.913
Condition																					
Cond (<25) ⁵	-1.62	1.45	0.264	-2.16	1.89	0.256	-2.03	1.88	0.280	-2.63	1.60	0.101	-3.70	2.10	0.083 .	-2.77	1.89	0.144	-2.77	1.89	0.143
Cond (>55) ⁵	0.27	1.47	0.854	-0.43	1.59	0.786	-0.49	1.60	0.761	-0.44	1.67	0.792	-1.89	1.80	0.296	-1.85	1.61	0.250	-1.85	1.60	0.250
Cond (Swiss) ⁵	-3.13	1.53	0.041 *	-2.65	2.41	0.274	-2.27	2.36	0.335	-3.46	1.66	0.037 *	-4.00	2.42	0.102	-3.68	2.33	0.114	-3.68	2.33	0.115
Cond (EU) ⁵	-0.91	1.44	0.529	-0.08	1.85	0.966	-0.20	1.79	0.910	-3.39	1.54	0.028 *	-2.47	1.88	0.193	-1.81	1.62	0.263	-1.81	1.62	0.263
Personal controls																					
Age										-0.29	0.66	0.657	-0.31	0.67	0.645	-0.94	0.66	0.152	-0.94	0.65	0.151
Swiss nationality										-0.61	1.45	0.673	-0.93	1.52	0.543	-0.07	1.40	0.959	-0.11	1.40	0.937
Eu nationality										0.95	1.33	0.472	2.36	1.56	0.134	1.09	1.28	0.393	1.08	1.29	0.404
Gender (male) ¹										0.08	1.06	0.937	-0.01	1.21	0.991	0.03	1.05	0.976	0.03	1.05	0.975
Gender (diverse) ¹										3.42	4.78	0.475	5.22	4.30	0.229	1.39	4.05	0.731	1.38	4.05	0.734
Political Ideology and Values																					
Left-Right										-0.46	0.22	0.036 *	-0.26	0.25	0.297	-0.24	0.25	0.322	-0.24	0.25	0.325
Egalitarian Values										1.63	0.58	0.005 **	1.32	0.76	0.087 .	0.93	0.73	0.200	0.93	0.73	0.201
Highest Education Parents																					
Vocational school ²										1.67	2.76	0.545	-0.06	3.19	0.984	2.43	2.72	0.373	2.43	2.72	0.372
Grammar School / teacher seminar ²										1.93	3.05	0.527	-0.35	3.46	0.919	1.35	2.89	0.640	1.28	2.93	0.662
Higher Vocational training ²										1.09	2.78	0.696	-0.74	3.33	0.826	1.59	2.82	0.572	1.52	2.87	0.596
University ²										0.88	2.76	0.748	-0.60	2.85	0.834	1.48	2.49	0.553	1.37	2.69	0.612
Other ²										2.67	3.81	0.484	2.82	4.02	0.485	2.79	3.40	0.413	2.76	3.43	0.422
Don't know ²										-0.56	2.98	0.850	-2.62	4.21	0.535	-0.30	3.41	0.931	-0.32	3.42	0.925
Self-interest																					
Self-assessment job prospect										1.91	0.59	0.001 **	1.45	0.58	0.014 *	1.40	0.53	0.009 **	1.40	0.54	0.009 **
Perceived socio-economic status of family										0.44	0.30	0.146	0.78	0.31	0.014 *	0.65	0.29	0.026 *	0.65	0.29	0.028 *
Hisei Parents ⁴																			0.00	0.04	0.906
Contact with unemployed																					
Contact with unemployed (yes) ³										2.87	1.11	0.010 **	4.81	1.33	0.001 ***	3.93	1.32	0.003 **	3.93	1.34	0.003 **
Contact with unemployed (don't tell) ³										-1.21	1.81	0.502	-0.69	2.79	0.805	0.22	2.21	0.922	0.21	2.21	0.925
Performance Evaluations																					
Performance Evaluation [Experimentally modified]										1.42	0.32	0.000 ***	1.49	0.40	0.000 ***	1.43	0.38	0.000 ***	1.42	0.38	0.000 ***
Observations																					
		1551			1551			Pooled (100 datasets, controls imputed)			1269			1269			Pooled (100 datasets, controls imputed)			Pooled (100 datasets, controls imputed)	

Dependent Variable: Benefit duration [Experimentally modified]																					
Independent Variable: Overall Deservingness [Experimentally modified]																					
Models	Baseline Model									Full Model											
	Unweighted (1a)			Weighted (2a)			Weighted & Imputed (3a)			Unweighted (1b)			Weighted (2b)			Weighted & Imputed (3b)			Weighted & Imputed (3c)		
	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value
Variables																					
Intercept	8.24	1.95	0.000 ***	6.63	2.44	0.008 **	6.51	2.47	0.008 **	-2.97	8.21	0.717	-2.69	8.25	0.745	-3.57	8.17	0.662	-4.72	8.24	0.567
Deservingness Variables																					
Deservingness (Overall)	2.22	0.52	0.000 ***	2.49	0.68	0.000 ***	2.50	0.68	0.000 ***	1.76	0.55	0.001 **	1.85	0.66	0.007 **	2.16	0.65	0.001 ***	2.16	0.65	0.001 ***
Condition																					
Cond (<25) ⁵	-1.39	1.06	0.190	-0.57	1.07	0.596	-0.56	1.12	0.617	-0.52	1.25	0.678	0.38	1.15	0.740	-0.34	1.04	0.742	-0.34	1.04	0.743
Cond (>55) ⁵	-0.06	1.28	0.963	0.53	1.31	0.689	0.51	1.29	0.691	1.06	1.55	0.495	1.48	1.75	0.400	0.62	1.34	0.642	0.65	1.34	0.626
Cond (Swiss) ⁵	-0.33	1.11	0.766	0.42	1.22	0.733	0.40	1.25	0.747	-0.28	1.13	0.806	0.66	1.28	0.606	0.48	1.23	0.699	0.49	1.22	0.691
Cond (EU) ⁵	-2.55	0.99	0.010 **	-1.79	1.14	0.121	-1.69	1.19	0.157	-2.54	1.10	0.022 *	-1.65	1.11	0.141	-1.56	1.16	0.180	-1.55	1.16	0.179
Personal controls																					
Age										0.21	0.53	0.690	-0.12	0.58	0.836	-0.14	0.58	0.813	-0.13	0.57	0.817
Swiss nationality										1.64	1.05	0.117	1.02	1.05	0.339	1.48	0.95	0.121	1.22	0.98	0.213
Eu nationality										-0.68	0.94	0.472	-0.42	0.98	0.674	-0.03	0.89	0.969	-0.14	0.89	0.872
Gender (male) ¹										2.49	0.87	0.004 **	2.60	0.93	0.006 **	2.27	0.96	0.018 *	2.26	0.96	0.019 *
Gender (diverse) ¹										2.22	2.00	0.266	1.70	2.40	0.480	0.66	2.57	0.796	0.56	2.55	0.826
Political Ideology and Values																					
Left-Right										-0.16	0.16	0.323	-0.19	0.15	0.213	-0.18	0.16	0.252	-0.17	0.16	0.298
Egalitarian Values										1.24	0.49	0.011 *	1.73	0.51	0.001 **	1.67	0.48	0.000 ***	1.66	0.48	0.001 ***
Highest Education Parents																					
Vocational school ²										3.24	1.42	0.023 *	0.70	1.92	0.715	1.15	1.67	0.491	1.13	1.68	0.502
Grammar School / teacher seminar ²										5.27	2.34	0.025 *	6.35	3.79	0.098 .	6.19	3.04	0.042 *	5.73	3.11	0.065 .
Higher Vocational training ²										3.73	1.31	0.005 **	1.65	1.93	0.393	2.22	1.73	0.200	1.75	1.84	0.343
University ²										2.80	1.31	0.032 *	0.60	1.77	0.735	1.03	1.62	0.526	0.30	1.88	0.875
Other ²										4.87	3.09	0.115	0.82	2.90	0.779	0.46	2.47	0.854	0.28	2.48	0.911
Don't know ²										2.35	1.49	0.115	-0.88	2.10	0.674	0.41	1.79	0.819	0.22	1.84	0.903
Self-interest																					
Self-assessment job prospect										0.37	0.43	0.391	1.05	0.53	0.049 *	0.79	0.46	0.089 .	0.78	0.47	0.095 .
Perceived socio-economic status of family										-0.10	0.25	0.699	-0.01	0.27	0.972	0.06	0.23	0.777	0.05	0.23	0.808
Hisei Parents ⁴																			0.03	0.03	0.331
Contact with unemployed																					
Contact with unemployed (yes) ³										0.94	0.85	0.271	1.03	0.93	0.271	1.20	0.90	0.181	1.24	0.90	0.168
Contact with unemployed (don't tell) ³										-1.91	1.94	0.323	-0.93	2.52	0.713	0.52	2.12	0.808	0.50	2.12	0.815
Performance Evaluations																					
Performance Evaluation [Experimentally modified]										-0.13	0.22	0.550	0.15	0.23	0.525	0.16	0.23	0.489	0.15	0.23	0.506
Observations																					
	1473			1473			Pooled (100 datasets, controls imputed)			1216			1216			Pooled (100 datasets, controls imputed)			Pooled (100 datasets, controls imputed)		

Dependent Variable: Benefit duration [Experimentally modified]																					
Independent Variable: CARIN-criteria Deservingness [Experimentally modified]																					
Models	Baseline Model									Full Model											
	Unweighted (1a)			Weighted (2a)			Weighted & Imputed (3a)			Unweighted (1b)			Weighted (2b)			Weighted & Imputed (3b)			Weighted & Imputed (3c)		
Variables	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value
Intercept	7.92	2.88	0.006 **	9.78	3.40	0.005 **	9.56	3.34	0.004 **	-1.11	8.66	0.898	1.88	9.11	0.837	0.76	8.97	0.932	-0.24	9.05	0.979
Deservingness Variables																					
Control	1.12	0.44	0.011 *	0.71	0.60	0.239	0.79	0.57	0.164	0.98	0.44	0.028 *	0.57	0.54	0.300	0.86	0.53	0.107	0.85	0.53	0.109
Attitude	0.24	0.39	0.549	0.18	0.47	0.702	0.11	0.46	0.811	0.36	0.43	0.396	0.21	0.52	0.687	0.16	0.45	0.721	0.16	0.45	0.726
Reciprocity Past	0.44	0.38	0.249	0.19	0.51	0.705	0.22	0.51	0.666	0.16	0.41	0.706	0.40	0.49	0.417	0.08	0.51	0.871	0.07	0.51	0.885
Reciprocity Future	0.78	0.33	0.019 *	0.69	0.47	0.142	0.68	0.45	0.132	0.75	0.36	0.040 *	0.73	0.38	0.062 .	0.61	0.43	0.155	0.60	0.43	0.165
Identity	-0.03	0.48	0.952	0.43	0.65	0.511	0.42	0.62	0.494	-0.25	0.45	0.579	0.01	0.58	0.988	0.19	0.59	0.750	0.19	0.59	0.747
Need	-0.02	0.46	0.974	-0.43	0.42	0.311	-0.39	0.44	0.374	-0.40	0.46	0.384	-0.92	0.54	0.092 .	-0.42	0.43	0.335	-0.42	0.43	0.329
Condition																					
Cond (<25) ⁵	-1.22	1.08	0.259	-0.60	1.10	0.591	-0.57	1.13	0.614	-0.26	1.26	0.834	0.45	1.18	0.706	-0.37	1.04	0.721	-0.37	1.04	0.721
Cond (>55) ⁵	-0.03	1.32	0.979	0.40	1.37	0.772	0.37	1.32	0.781	1.22	1.60	0.447	1.37	1.76	0.437	0.52	1.38	0.706	0.55	1.38	0.690
Cond (Swiss) ⁵	-0.36	1.16	0.755	0.21	1.23	0.867	0.14	1.25	0.910	-0.22	1.16	0.851	0.49	1.30	0.704	0.21	1.24	0.865	0.22	1.24	0.858
Cond (EU) ⁵	-3.14	1.00	0.002 **	-2.38	1.20	0.051 .	-2.33	1.23	0.058 .	-3.03	1.12	0.007 **	-2.05	1.25	0.107	-2.19	1.23	0.074 .	-2.19	1.22	0.073 .
Personal controls																					
Age										0.18	0.54	0.743	-0.12	0.58	0.836	-0.21	0.57	0.708	-0.21	0.56	0.712
Swiss nationality										1.64	1.08	0.128	1.02	1.05	0.339	1.38	0.98	0.162	1.14	1.00	0.256
Eu nationality										-0.62	0.97	0.520	-0.42	0.98	0.674	-0.02	0.94	0.986	-0.12	0.94	0.900
Gender (male) ¹										2.69	0.90	0.003 **	2.60	0.93	0.006 **	2.57	0.96	0.008 **	2.56	0.96	0.008 **
Gender (diverse) ¹										1.56	2.08	0.454	1.70	2.40	0.480	0.85	2.50	0.732	0.76	2.48	0.759
Political Ideology and Values																					
Left-Right										-0.16	0.16	0.304	-0.19	0.15	0.213	-0.17	0.16	0.278	-0.16	0.16	0.320
Egalitarian Values										1.33	0.50	0.008 **	1.73	0.51	0.001 **	1.80	0.46	0.000 ***	1.79	0.46	0.000 ***
Highest Education Parents																					
Vocational school ²										2.94	1.47	0.045 *	0.70	1.92	0.715	0.92	1.74	0.596	0.91	1.75	0.603
Grammar School / teacher seminar ²										5.15	2.40	0.032 *	6.35	3.79	0.098 .	6.15	3.00	0.040 *	5.72	3.05	0.061 .
Higher Vocational training ²										3.35	1.36	0.014 *	1.65	1.93	0.393	2.01	1.79	0.261	1.57	1.92	0.414
University ²										2.28	1.38	0.098 .	0.60	1.77	0.735	0.78	1.67	0.641	0.09	1.94	0.962
Other ²										4.41	3.14	0.160	0.82	2.90	0.779	0.18	2.40	0.940	0.02	2.41	0.995
Don't know ²										2.01	1.56	0.198	-0.88	2.10	0.674	0.13	1.90	0.945	-0.04	1.95	0.984
Self-interest																					
Self-assessment job prospect										0.41	0.44	0.350	1.05	0.53	0.049 *	0.75	0.48	0.117	0.73	0.48	0.123
Perceived socio-economic status of family										-0.11	0.26	0.676	-0.01	0.27	0.972	0.02	0.23	0.923	0.01	0.23	0.953
Hisei Parents ⁴																			0.03	0.03	0.370
Contact with unemployed																					
Contact with unemployed (yes) ³										0.77	0.85	0.365	1.03	0.93	0.271	1.38	0.85	0.105	1.42	0.85	0.095 .
Contact with unemployed (don't tell) ³										-2.00	2.04	0.325	-0.93	2.52	0.713	0.33	2.20	0.882	0.31	2.20	0.888
Performance Evaluations																					
Performance Evaluation [Experimentally modified]										-0.14	0.21	0.483	0.15	0.23	0.525	0.12	0.23	0.597	0.12	0.23	0.616
Observations	1453			1453			Pooled (100 datasets, controls imputed)			1197			1197			Pooled (100 datasets, controls imputed)			Pooled (100 datasets, controls imputed)		

Dependent Variable: Role of Government living standard [Experimentally modified]																								
Independent Variable: Overall Deservingness [Experimentally modified]																								
Models	Baseline Model									Full Model														
	Unweighted (1a)			Weighted (2a)			Weighted & Imputed (3a)			Unweighted (1b)			Weighted (2b)			Weighted & Imputed (3b)			Weighted & Imputed (3c)					
	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value			
Variables																								
Intercept	3.30	0.31	0.000 ***	3.42	0.37	0.000 ***	3.44	0.37	0.000 ***	3.18	1.20	0.008 **	3.62	1.31	0.007 **	3.69	1.15	0.001 **	3.72	1.16	0.001 **			
Deservingness Variables																								
Deservingness (Overall)	0.77	0.08	0.000 ***	0.73	0.10	0.000 ***	0.73	0.10	0.000 ***	0.71	0.08	0.000 ***	0.67	0.10	0.000 ***	0.67	0.10	0.000 ***	0.67	0.10	0.000 ***			
Condition																								
Cond (<25) ⁵	-0.44	0.16	0.007 **	-0.36	0.17	0.044 *	-0.34	0.17	0.049 *	-0.47	0.17	0.007 **	-0.47	0.17	0.006 **	-0.36	0.17	0.030 *	-0.36	0.17	0.030 *			
Cond (>55) ⁵	-0.02	0.16	0.892	-0.01	0.19	0.941	-0.02	0.19	0.913	-0.07	0.18	0.675	-0.18	0.17	0.290	-0.05	0.18	0.782	-0.05	0.18	0.777			
Cond (Swiss) ⁵	0.01	0.17	0.942	0.00	0.18	0.988	-0.01	0.18	0.946	-0.06	0.19	0.755	-0.13	0.19	0.485	-0.11	0.18	0.531	-0.11	0.18	0.530			
Cond (EU) ⁵	-0.04	0.16	0.827	0.01	0.21	0.969	0.02	0.21	0.936	-0.10	0.18	0.587	-0.14	0.21	0.513	-0.11	0.20	0.581	-0.11	0.20	0.579			
Personal controls																								
Age										-0.03	0.07	0.621	-0.07	0.07	0.341	-0.09	0.07	0.173	-0.09	0.07	0.172			
Swiss nationality										-0.22	0.15	0.143	-0.40	0.21	0.061 .	-0.23	0.17	0.163	-0.23	0.17	0.190			
Eu nationality										0.01	0.15	0.926	0.08	0.15	0.591	0.14	0.12	0.239	0.14	0.12	0.229			
Gender (male) ¹										-0.31	0.12	0.009 **	-0.31	0.14	0.029 *	-0.14	0.14	0.291	-0.14	0.14	0.291			
Gender (diverse) ¹										-0.34	0.38	0.371	-0.27	0.48	0.579	-0.16	0.41	0.689	-0.16	0.41	0.693			
Political Ideology and Values																								
Left-Right										-0.09	0.03	0.000 ***	-0.09	0.02	0.000 ***	-0.08	0.02	0.001 ***	-0.08	0.02	0.001 ***			
Egalitarian Values										0.20	0.06	0.001 **	0.19	0.06	0.003 **	0.17	0.06	0.010 *	0.17	0.06	0.010 *			
Highest Education Parents																								
Vocational school ²										-0.08	0.29	0.781	-0.08	0.28	0.764	0.00	0.27	0.987	0.00	0.27	0.986			
Grammar School / teacher seminar ²										-0.19	0.33	0.577	-0.33	0.38	0.387	-0.16	0.37	0.673	-0.14	0.38	0.710			
Higher Vocational training ²										0.01	0.29	0.959	0.01	0.29	0.969	0.21	0.27	0.440	0.22	0.29	0.443			
University ²										-0.01	0.29	0.978	-0.16	0.31	0.608	-0.01	0.27	0.973	0.01	0.30	0.966			
Other ²										0.11	0.39	0.783	0.13	0.37	0.729	0.49	0.35	0.164	0.50	0.35	0.161			
Don't know ²										0.27	0.31	0.385	0.18	0.29	0.547	0.10	0.29	0.723	0.11	0.30	0.714			
Self-interest																								
Self-assessment job prospect										0.04	0.07	0.547	0.04	0.07	0.566	0.10	0.06	0.122	0.10	0.06	0.121			
Perceived socio-economic status of family										0.08	0.03	0.023 *	0.13	0.04	0.000 ***	0.09	0.03	0.007 **	0.09	0.03	0.007 **			
Hisei Parents ⁴																			0.00	0.00	0.849			
Contact with unemployed																								
Contact with unemployed (yes) ³										0.30	0.13	0.020 *	0.39	0.10	0.000 ***	0.33	0.11	0.004 **	0.32	0.11	0.004 **			
Contact with unemployed (don't tell) ³										-0.25	0.20	0.226	-0.13	0.24	0.584	-0.32	0.23	0.165	-0.32	0.23	0.165			
Performance Evaluations																								
Performance Evaluation [Experimentally modified]										0.04	0.04	0.305	0.05	0.04	0.236	0.05	0.03	0.100	0.05	0.03	0.100			
Observations																								
		1576			1576				Pooled (100 datasets, controls imputed)		1286			1286				Pooled (100 datasets, controls imputed)			Pooled (100 datasets, controls imputed)			

Dependent Variable: Role of Government Living Standard [Experimentally modified]																					
Independent Variable: CARIN-criteria Deservingness [Experimentally modified]																					
Models	Baseline Model									Full Model											
	Unweighted (1a)			Weighted (2a)			Weighted & Imputed (3a)			Unweighted (1b)			Weighted (2b)			Weighted & Imputed (3b)			Weighted & Imputed (3c)		
Variables	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value
Intercept	1.94	0.38	0.000 ***	2.23	0.40	0.000 ***	2.29	0.40	0.000 ***	1.72	1.22	0.158	2.52	1.47	0.091 .	2.85	1.19	0.016 *	2.93	1.20	0.015 *
Deservingness Variables																					
Control	0.27	0.06	0.000 ***	0.25	0.07	0.001 ***	0.26	0.07	0.000 ***	0.26	0.06	0.000 ***	0.23	0.06	0.000 ***	0.25	0.06	0.000 ***	0.25	0.06	0.000 ***
Attitude	0.10	0.06	0.107	0.09	0.06	0.130	0.08	0.06	0.224	0.08	0.06	0.195	0.09	0.06	0.117	0.09	0.06	0.105	0.09	0.06	0.104
Reciprocity Past	0.35	0.07	0.000 ***	0.27	0.10	0.007 **	0.26	0.10	0.008 **	0.37	0.07	0.000 ***	0.32	0.10	0.002 **	0.22	0.10	0.020 *	0.22	0.10	0.020 *
Reciprocity Future	0.23	0.06	0.000 ***	0.26	0.06	0.000 ***	0.28	0.07	0.000 ***	0.24	0.06	0.000 ***	0.28	0.07	0.000 ***	0.26	0.06	0.000 ***	0.27	0.06	0.000 ***
Identity	0.19	0.06	0.001 **	0.24	0.07	0.002 **	0.24	0.07	0.001 **	0.14	0.06	0.033 *	0.18	0.07	0.018 *	0.22	0.07	0.002 **	0.22	0.07	0.003 **
Need	0.13	0.06	0.022 *	0.06	0.07	0.361	0.05	0.06	0.423	0.17	0.06	0.006 **	0.08	0.06	0.225	0.06	0.06	0.285	0.06	0.06	0.280
Condition																					
Cond (<25) ⁵	-0.32	0.16	0.053 .	-0.25	0.17	0.135	-0.23	0.17	0.159	-0.42	0.18	0.019 *	-0.42	0.18	0.018 *	-0.27	0.17	0.108	-0.27	0.17	0.108
Cond (>55) ⁵	-0.04	0.16	0.786	-0.06	0.18	0.752	-0.09	0.19	0.653	-0.17	0.18	0.335	-0.28	0.18	0.124	-0.11	0.18	0.526	-0.12	0.18	0.518
Cond (Swiss) ⁵	0.10	0.17	0.535	0.08	0.19	0.664	0.02	0.20	0.931	-0.02	0.19	0.935	-0.08	0.20	0.706	-0.10	0.19	0.614	-0.10	0.19	0.611
Cond (EU) ⁵	-0.12	0.17	0.462	-0.10	0.19	0.586	-0.11	0.19	0.559	-0.21	0.18	0.237	-0.26	0.20	0.200	-0.23	0.18	0.211	-0.23	0.18	0.208
Personal controls																					
Age										-0.03	0.07	0.684	-0.08	0.08	0.321	-0.10	0.07	0.138	-0.10	0.07	0.138
Swiss nationality										-0.21	0.15	0.160	-0.34	0.22	0.118	-0.25	0.17	0.139	-0.24	0.18	0.176
Eu nationality										0.01	0.15	0.965	0.04	0.14	0.752	0.14	0.12	0.250	0.15	0.12	0.227
Gender (male) ¹										-0.22	0.12	0.067 .	-0.21	0.13	0.105	-0.01	0.14	0.962	-0.01	0.14	0.967
Gender (diverse) ¹										-0.44	0.42	0.296	-0.30	0.51	0.560	-0.16	0.46	0.727	-0.15	0.46	0.736
Political Ideology and Values																					
Left-Right										-0.08	0.03	0.002 **	-0.08	0.03	0.004 **	-0.07	0.03	0.006 **	-0.07	0.03	0.006 **
Egalitarian Values										0.18	0.07	0.007 **	0.18	0.06	0.005 **	0.17	0.06	0.008 **	0.17	0.06	0.008 **
Highest Education Parents																					
Vocational school ²										-0.16	0.29	0.575	-0.27	0.28	0.334	-0.15	0.27	0.580	-0.15	0.27	0.581
Grammar School / teacher seminar ²										-0.34	0.34	0.318	-0.49	0.39	0.207	-0.30	0.38	0.433	-0.27	0.40	0.497
Higher Vocational training ²										-0.14	0.29	0.640	-0.20	0.31	0.525	0.04	0.29	0.888	0.07	0.31	0.817
University ²										-0.19	0.29	0.513	-0.38	0.31	0.222	-0.19	0.26	0.464	-0.14	0.30	0.631
Other ²										0.02	0.39	0.957	0.00	0.31	0.999	0.30	0.32	0.354	0.31	0.32	0.334
Don't know ²										0.10	0.31	0.754	-0.08	0.30	0.783	-0.08	0.30	0.795	-0.07	0.30	0.828
Self-interest																					
Self-assessment job prospect										0.00	0.07	0.966	0.01	0.07	0.845	0.07	0.06	0.207	0.07	0.06	0.202
Perceived socio-economic status of family										0.09	0.04	0.014 *	0.12	0.04	0.001 **	0.08	0.03	0.012 *	0.08	0.03	0.012 *
Hisei Parents ⁴																			0.00	0.00	0.682
Contact with unemployed																					
Contact with unemployed (yes) ³										0.27	0.13	0.033 *	0.38	0.11	0.001 ***	0.36	0.12	0.004 **	0.35	0.12	0.004 **
Contact with unemployed (don't tell) ³										-0.32	0.21	0.140	-0.28	0.23	0.219	-0.38	0.23	0.096 .	-0.38	0.23	0.096 .
Performance Evaluations																					
Performance Evaluation [Experimentally modified]										0.06	0.04	0.100 .	0.07	0.04	0.122	0.06	0.03	0.048 *	0.06	0.03	0.047 *
Observations																					
		1553			1553			Pooled (100 datasets, controls imputed)			1267			1267			Pooled (100 datasets, controls imputed)			Pooled (100 datasets, controls imputed)	

Dependent Variable: Role of Government Job [Experimentally modified]																					
Independent Variable: Overall Deservingness [Experimentally modified]																					
Models	Baseline Model									Full Model											
	Unweighted (1a)			Weighted (2a)			Weighted & Imputed (3a)			Unweighted (1b)			Weighted (2b)			Weighted & Imputed (3b)			Weighted & Imputed (3c)		
Variables	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value
Intercept	5.24	0.33	0.000 ***	5.12	0.32	0.000 ***	5.13	0.32	0.000 ***	4.38	1.41	0.002 **	4.00	1.74	0.024 *	4.69	1.54	0.002 **	4.57	1.55	0.003 **
Deservingness Variables																					
Deservingness (Overall)	0.34	0.09	0.000 ***	0.33	0.08	0.000 ***	0.32	0.08	0.000 ***	0.35	0.10	0.000 ***	0.31	0.09	0.001 ***	0.30	0.08	0.000 ***	0.30	0.08	0.000 ***
Condition																					
Cond (<25) ⁵	-0.34	0.19	0.069 .	-0.19	0.21	0.367	-0.18	0.20	0.386	-0.45	0.21	0.030 *	-0.33	0.17	0.057 .	-0.26	0.18	0.160	-0.26	0.18	0.159
Cond (>55) ⁵	-0.64	0.19	0.001 ***	-0.46	0.23	0.050 .	-0.46	0.23	0.046 *	-0.79	0.22	0.000 ***	-0.71	0.26	0.007 **	-0.53	0.24	0.027 *	-0.52	0.24	0.027 *
Cond (Swiss) ⁵	-0.34	0.20	0.094 .	-0.21	0.19	0.286	-0.23	0.19	0.237	-0.27	0.22	0.226	-0.06	0.20	0.749	-0.32	0.18	0.085 .	-0.32	0.18	0.086 .
Cond (EU) ⁵	0.05	0.18	0.768	0.24	0.19	0.198	0.24	0.19	0.192	-0.02	0.20	0.916	0.20	0.20	0.332	0.16	0.18	0.363	0.16	0.18	0.362
Personal controls																					
Age										-0.03	0.08	0.747	-0.02	0.11	0.875	-0.07	0.10	0.526	-0.07	0.10	0.529
Swiss nationality										-0.01	0.17	0.972	-0.05	0.21	0.826	-0.10	0.18	0.558	-0.13	0.18	0.472
Eu nationality										0.17	0.16	0.307	0.23	0.19	0.245	0.25	0.18	0.171	0.24	0.18	0.189
Gender (male) ⁴										-0.04	0.14	0.776	0.12	0.17	0.499	0.07	0.15	0.626	0.07	0.15	0.633
Gender (diverse) ⁴										-0.24	0.50	0.632	-0.13	0.42	0.759	0.15	0.41	0.722	0.14	0.41	0.739
Political Ideology and Values																					
Left-Right										0.00	0.03	0.935	0.01	0.03	0.821	0.01	0.03	0.708	0.01	0.03	0.675
Egalitarian Values										0.25	0.08	0.001 **	0.27	0.08	0.002 **	0.24	0.08	0.002 **	0.23	0.08	0.002 **
Highest Education Parents																					
Vocational school ²										0.08	0.34	0.819	-0.01	0.33	0.968	0.17	0.30	0.561	0.17	0.30	0.566
Grammar School / teacher seminar ²										0.09	0.38	0.808	-0.17	0.45	0.709	0.04	0.40	0.929	-0.01	0.40	0.973
Higher Vocational training ²										0.01	0.34	0.968	-0.21	0.38	0.580	-0.03	0.35	0.942	-0.08	0.35	0.829
University ²										0.23	0.34	0.488	0.10	0.44	0.818	0.30	0.38	0.429	0.22	0.38	0.561
Other ²										0.70	0.41	0.087 .	0.50	0.44	0.254	0.80	0.37	0.031 *	0.78	0.37	0.033 *
Don't know ²										-0.26	0.36	0.479	-0.35	0.38	0.360	-0.19	0.34	0.587	-0.21	0.34	0.541
Self-interest																					
Self-assessment job prospect										0.10	0.07	0.197	0.11	0.07	0.137	0.10	0.06	0.126	0.10	0.06	0.133
Perceived socio-economic status of family										0.00	0.04	0.913	0.00	0.04	0.937	0.00	0.03	0.999	0.00	0.03	0.978
Hisei Parents ⁴																			0.00	0.00	0.518
Contact with unemployed																					
Contact with unemployed (yes) ³										0.08	0.15	0.599	0.24	0.17	0.167	0.22	0.15	0.150	0.22	0.15	0.142
Contact with unemployed (don't tell) ³										-0.25	0.24	0.294	-0.03	0.29	0.932	-0.13	0.29	0.640	-0.14	0.29	0.636
Performance Evaluations																					
Performance Evaluation [Experimentally modified]										0.02	0.04	0.569	0.02	0.03	0.516	0.04	0.03	0.278	0.04	0.03	0.29
Observations		1564			1564			Pooled (100 datasets, controls imputed)			1279			1279			Pooled (100 datasets, controls imputed)			Pooled (100 datasets, controls imputed)	

Dependent Variable: Role of Government Job [Experimentally modified]																					
Independent Variable: CARIN-criteria Deservingness [Experimentally modified]																					
Models	Baseline Model									Full Model											
	Unweighted (1a)			Weighted (2a)			Weighted & Imputed (3a)			Unweighted (1b)			Weighted (2b)			Weighted & Imputed (3b)			Weighted & Imputed (3c)		
Variables	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value
Intercept	4.42	0.46	0.000 ***	4.43	0.42	0.000 ***	4.43	0.41	0.000 ***	3.97	1.47	0.007 **	3.73	1.77	0.038 *	4.03	1.52	0.008 **	3.93	1.54	0.011 *
Deservingness Variables																					
Control	0.13	0.07	0.056 .	0.14	0.05	0.007 **	0.15	0.05	0.004 **	0.12	0.07	0.093 .	0.10	0.06	0.106	0.16	0.05	0.004 **	0.16	0.05	0.004 **
Attitude	0.13	0.06	0.037 *	0.12	0.06	0.061 .	0.10	0.07	0.156	0.11	0.07	0.120	0.12	0.07	0.074 .	0.11	0.06	0.062 .	0.11	0.06	0.062 .
Reciprocity Past	0.11	0.07	0.129	0.07	0.08	0.396	0.05	0.08	0.537	0.04	0.08	0.613	0.04	0.08	0.660	0.03	0.08	0.739	0.03	0.08	0.746
Reciprocity Future	0.04	0.06	0.544	0.02	0.07	0.795	0.04	0.07	0.599	0.08	0.07	0.271	0.05	0.07	0.427	0.04	0.07	0.600	0.04	0.07	0.609
Identity	0.06	0.07	0.399	0.08	0.08	0.264	0.09	0.07	0.215	-0.01	0.08	0.878	0.01	0.08	0.936	0.07	0.07	0.328	0.07	0.07	0.326
Need	0.17	0.06	0.007 **	0.17	0.06	0.007 **	0.17	0.06	0.005 **	0.19	0.07	0.008 **	0.16	0.06	0.006 **	0.16	0.06	0.004 **	0.16	0.06	0.004 **
Condition																					
Cond (<25) ⁵	-0.25	0.19	0.193	-0.11	0.20	0.571	-0.12	0.20	0.542	-0.40	0.21	0.060 .	-0.30	0.17	0.081 .	-0.22	0.18	0.242	-0.22	0.18	0.242
Cond (>55) ⁵	-0.61	0.19	0.002 **	-0.43	0.24	0.072 .	-0.46	0.23	0.051 .	-0.78	0.23	0.001 ***	-0.70	0.27	0.011 *	-0.54	0.24	0.027 *	-0.53	0.24	0.028 *
Cond (Swiss) ⁵	-0.30	0.21	0.143	-0.16	0.20	0.426	-0.17	0.19	0.359	-0.27	0.23	0.237	-0.04	0.21	0.857	-0.28	0.18	0.110	-0.28	0.18	0.111
Cond (EU) ⁵	0.01	0.18	0.935	0.19	0.19	0.314	0.20	0.19	0.303	-0.12	0.20	0.558	0.10	0.20	0.604	0.10	0.18	0.587	0.10	0.18	0.583
Personal controls																					
Age										-0.03	0.08	0.725	-0.02	0.11	0.829	-0.07	0.11	0.507	-0.07	0.11	0.510
Swiss nationality										0.05	0.17	0.763	0.04	0.22	0.867	-0.09	0.18	0.629	-0.11	0.18	0.548
Eu nationality										0.22	0.17	0.196	0.27	0.19	0.169	0.27	0.18	0.150	0.26	0.18	0.162
Gender (male) ¹										-0.02	0.14	0.869	0.14	0.18	0.443	0.13	0.15	0.377	0.13	0.15	0.383
Gender (diverse) ¹										-0.29	0.52	0.583	-0.10	0.44	0.824	0.16	0.44	0.711	0.15	0.44	0.725
Political Ideology and Values																					
Left-Right										0.00	0.03	0.923	0.01	0.03	0.860	0.01	0.03	0.725	0.01	0.03	0.700
Egalitarian Values										0.23	0.08	0.004 **	0.23	0.08	0.004 **	0.23	0.08	0.003 **	0.23	0.08	0.003 **
Highest Education Parents																					
Vocational school ²										0.07	0.35	0.847	-0.05	0.35	0.893	0.13	0.30	0.671	0.13	0.30	0.675
Grammar School / teacher seminar ²										0.05	0.39	0.896	-0.20	0.47	0.672	0.00	0.40	0.994	-0.05	0.40	0.910
Higher Vocational training ²										-0.02	0.35	0.952	-0.25	0.40	0.540	-0.09	0.35	0.809	-0.13	0.35	0.717
University ²										0.18	0.34	0.597	0.04	0.45	0.929	0.22	0.39	0.584	0.15	0.40	0.708
Other ²										0.68	0.42	0.105	0.46	0.45	0.302	0.76	0.38	0.043 *	0.75	0.37	0.045 *
Don't know ²										-0.29	0.37	0.440	-0.42	0.42	0.324	-0.25	0.35	0.474	-0.27	0.35	0.438
Self-interest																					
Self-assessment job prospect										0.08	0.08	0.295	0.09	0.07	0.196	0.09	0.06	0.157	0.09	0.06	0.164
Perceived socio-economic status of family										0.01	0.04	0.889	0.01	0.04	0.852	0.00	0.03	0.988	0.00	0.03	0.994
Hisei Parents ¹																			0.00	0.00	0.570
Contact with unemployed																					
Contact with unemployed (yes) ³										0.08	0.15	0.603	0.24	0.19	0.202	0.24	0.15	0.118	0.25	0.15	0.112
Contact with unemployed (don't tell) ³										-0.36	0.25	0.141	-0.14	0.28	0.613	-0.16	0.28	0.571	-0.16	0.28	0.569
Performance Evaluations																					
Performance Evaluation [Experimentally modified]										0.04	0.04	0.379	0.04	0.04	0.293	0.05	0.03	0.121	0.05	0.03	0.128
Observations																					
	1543			1543			Pooled (100 datasets, controls imputed)			1262			1262			Pooled (100 datasets, controls imputed)			Pooled (100 datasets, controls imputed)		

Notes: Exp. modified = Experimentally modified. A p-value of 0.000 in the table refers to values < 0.001 . Where possible, robust standard errors were calculated. For details on the weighted models, see Lumley (2023a, b). For the unweighted linear models, the "vcovHC" function from the "sandwich" package was used to obtain heteroscedasticity-consistent estimators. For the ordered regression models, bootstrapping techniques (1000 resamples) were used. Missing control variables were imputed using the Multiple Imputation by Chained Equations (MICE) method, using predictive mean matching as the prediction algorithm. A total of 100 imputed datasets were generated, each undergoing 100 iterations to ensure convergence and robustness of the imputation. Only control variables were subject to imputation. For more details see the prediction matrix used for the imputation process. 1 reference category = female; 2 reference category = obligatory school; 3 reference category = contact with unemployed (no); 4 Due to a relatively high missing rate for the "hisei" variable (42.7%), this variable was only included as a robustness check in another full weighted and imputed model (3c) to minimise bias in the unimputed models (1b and 2b). The missingness primarily resulted from inaccuracies in some of the students' responses, making it impossible to code their parents' occupation in line with the ISCO 08 definitions (e.g., if the occupational description was "office job" or if only the name of a company was given as answer). 5 reference category = baseline condition.

VI.1.4 A4: Results of the Regression Models (Deservingness -> Social Obligations)

Dependent Variable: Obligation - benefit cuts in case a job is turned down because it requires a lower educational level [Experimentally modified]																					
Independent Variable: Overall Deservingness [Experimentally modified]																					
Models	Baseline Model									Full Model											
	Unweighted (1a)			Weighted (2a)			Weighted & Imputed (3a)			Unweighted (1b)			Weighted (2b)			Weighted & Imputed (3b)			Weighted & Imputed (3c)		
Variables	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value			
Intercept:1	-0.91	0.26	0.000 ***	1.22	0.31	0.000 ***	1.22	0.31	0.000 ***	0.45	1.08	0.676	1.10	1.30	0.398	0.23	1.04	0.825	0.35	1.08	0.742
Intercept:2	0.70	0.25	0.006 **	-0.45	0.29	0.124	-0.46	0.30	0.119	2.12	1.09	0.051 .	-0.63	1.30	0.627	-1.49	1.04	0.151	-1.36	1.07	0.204
Intercept:3	2.41	0.27	0.000 ***	-2.19	0.31	0.000 ***	-2.20	0.31	0.000 ***	3.91	1.09	0.000 ***	-2.48	1.30	0.056 .	-3.27	1.04	0.002 **	-3.15	1.07	0.003 **
Deservingness Variables																					
Deservingness (Overall)	0.35	0.07	0.000 ***	0.27	0.08	0.000 ***	0.27	0.08	0.000 ***	0.34	0.07	0.000 ***	0.30	0.08	0.000 ***	0.27	0.08	0.001 ***	0.27	0.08	0.001 ***
Condition																					
Cond (<25) ⁵	0.06	0.14	0.700	-0.04	0.14	0.786	-0.05	0.14	0.748	0.09	0.16	0.570	-0.05	0.14	0.709	0.02	0.14	0.873	0.02	0.14	0.875
Cond (>55) ⁵	-0.07	0.15	0.650	0.05	0.15	0.747	0.05	0.15	0.731	-0.06	0.16	0.712	0.05	0.15	0.722	0.13	0.14	0.368	0.13	0.14	0.382
Cond (Swiss) ⁵	0.05	0.15	0.749	0.07	0.16	0.651	0.08	0.16	0.635	0.09	0.17	0.594	0.11	0.19	0.580	0.08	0.16	0.639	0.07	0.16	0.646
Cond (EU) ⁵	0.25	0.15	0.089 .	0.30	0.17	0.071 .	0.27	0.16	0.101	0.29	0.18	0.101	0.31	0.18	0.093 .	0.27	0.17	0.118	0.26	0.17	0.122
Personal controls																					
Age										0.05	0.06	0.426	-0.03	0.08	0.667	0.01	0.07	0.859	0.01	0.07	0.867
Swiss nationality										-0.23	0.14	0.099 .	-0.15	0.15	0.299	-0.12	0.14	0.362	-0.10	0.14	0.495
Eu nationality										0.14	0.15	0.344	0.10	0.16	0.517	0.06	0.14	0.654	0.07	0.14	0.605
Gender (male) ¹										-0.23	0.11	0.035 *	-0.17	0.11	0.128	-0.14	0.11	0.175	-0.14	0.11	0.177
Gender (diverse) ¹										-0.55	0.35	0.116	-0.52	0.38	0.174	-0.31	0.44	0.482	-0.30	0.44	0.494
Political Ideology and Values																					
Left-Right										-0.06	0.02	0.005 **	-0.08	0.02	0.001 **	-0.06	0.02	0.010 *	-0.06	0.02	0.009 **
Egalitarian Values										0.16	0.06	0.008 **	0.11	0.08	0.166	0.11	0.07	0.120	0.11	0.07	0.120
Highest Education Parents																					
Vocational school ²										0.18	0.27	0.520	0.31	0.25	0.221	0.31	0.25	0.217	0.31	0.25	0.212
Grammar School / teacher seminar ²										0.11	0.30	0.706	0.09	0.28	0.742	0.29	0.27	0.277	0.34	0.27	0.208
Higher Vocational training ²										0.22	0.27	0.407	0.14	0.26	0.588	0.10	0.25	0.698	0.14	0.25	0.563
University ²										0.12	0.27	0.667	0.12	0.25	0.644	0.05	0.22	0.808	0.13	0.23	0.586
Other ²										0.53	0.36	0.142	0.95	0.38	0.014 *	0.67	0.33	0.043 *	0.69	0.33	0.038 *
Don't know ²										0.17	0.28	0.540	0.29	0.30	0.335	0.27	0.26	0.303	0.29	0.26	0.271
Self-interest																					
Self-assessment job prospect										0.09	0.05	0.101	0.08	0.06	0.204	0.15	0.06	0.017 *	0.15	0.06	0.016 *
Perceived socio-economic status of family										0.06	0.03	0.043 *	0.06	0.04	0.154	0.05	0.03	0.173	0.05	0.03	0.170
Hisei Parents ⁴																			0.00	0.00	0.428
Contact with unemployed																					
Contact with unemployed (yes) ³										0.11	0.12	0.333	0.20	0.14	0.140	0.20	0.14	0.156	0.19	0.14	0.159
Contact with unemployed (don't tell) ³										0.02	0.18	0.932	-0.01	0.25	0.955	0.00	0.20	0.987	0.01	0.20	0.979
Performance Evaluations																					
Performance Evaluation [Experimentally modified]										-0.04	0.03	0.110	-0.04	0.03	0.174	-0.04	0.03	0.119	-0.04	0.03	0.124
Observations																					
		1554			1554			Pooled (100 datasets, controls imputed)			1277			1277		Pooled (100 datasets, controls imputed)		Pooled (100 datasets, controls imputed)			

Dependent Variable: Obligation - benefit cuts in case a job is turned down because it requires a lower educational level [Experimentally modified]																					
Independent Variable: CARIN-criteria Deservingness [Experimentally modified]																					
Models	Baseline Model									Full Model											
	Unweighted (1a)			Weighted (2a)			Weighted & Imputed (3a)			Unweighted (1b)			Weighted (2b)			Weighted & Imputed (3b)			Weighted & Imputed (3c)		
Variables	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value
Intercept:1	-0.67	0.35	0.058 .	1.00	0.39	0.010 *	1.04	0.38	0.007 **	0.43	1.14	0.708	1.22	1.42	0.391	0.27	1.16	0.814	0.40	1.20	0.737
Intercept:2	0.93	0.35	0.008 **	-0.69	0.38	0.070 .	-0.64	0.37	0.084 .	2.09	1.14	0.067 .	-0.53	1.43	0.712	-1.44	1.16	0.214	-1.31	1.20	0.273
Intercept:3	2.64	0.36	0.000 ***	-2.43	0.39	0.000 ***	-2.38	0.38	0.000 ***	3.87	1.14	0.001 ***	-2.37	1.42	0.094 .	-3.22	1.16	0.006 **	-3.09	1.20	0.010 **
Deservingness Variables																					
Control	0.10	0.05	0.041 *	0.03	0.06	0.609	0.03	0.06	0.549	0.08	0.06	0.180	0.03	0.05	0.531	0.03	0.05	0.554	0.03	0.05	0.539
Attitude	0.03	0.05	0.603	-0.04	0.05	0.458	-0.05	0.06	0.378	0.05	0.06	0.361	-0.01	0.06	0.822	-0.04	0.06	0.514	-0.04	0.06	0.516
Reciprocity Past	0.07	0.06	0.193	0.11	0.07	0.154	0.12	0.07	0.118	0.00	0.07	0.954	0.04	0.09	0.660	0.07	0.08	0.335	0.07	0.08	0.332
Reciprocity Future	0.09	0.05	0.083 .	0.12	0.05	0.029 *	0.12	0.05	0.032 *	0.09	0.06	0.118	0.11	0.06	0.048 *	0.11	0.05	0.028 *	0.12	0.05	0.026 *
Identity	0.09	0.05	0.101	0.08	0.05	0.100 .	0.08	0.05	0.133	0.08	0.06	0.222	0.07	0.05	0.132	0.06	0.05	0.264	0.06	0.05	0.264
Need	0.09	0.05	0.055 .	0.08	0.06	0.198	0.07	0.06	0.273	0.06	0.06	0.307	0.03	0.07	0.700	0.06	0.06	0.328	0.06	0.06	0.323
Condition																					
Cond (<25) ⁵	0.10	0.15	0.506	-0.01	0.14	0.951	-0.03	0.13	0.843	0.11	0.16	0.489	-0.05	0.13	0.700	0.02	0.13	0.865	0.02	0.13	0.861
Cond (>55) ⁵	-0.08	0.15	0.622	0.05	0.16	0.752	0.06	0.16	0.717	-0.07	0.17	0.680	0.04	0.17	0.803	0.14	0.15	0.375	0.13	0.15	0.389
Cond (Swiss) ⁵	0.09	0.15	0.538	0.13	0.17	0.428	0.08	0.16	0.617	0.12	0.18	0.507	0.14	0.19	0.465	0.06	0.16	0.695	0.06	0.16	0.701
Cond (EU) ⁵	0.21	0.15	0.152	0.32	0.15	0.031 *	0.26	0.15	0.092 .	0.24	0.18	0.170	0.29	0.15	0.054 .	0.24	0.16	0.123	0.24	0.16	0.129
Personal controls																					
Age										0.05	0.06	0.430	-0.03	0.08	0.690	0.01	0.07	0.861	0.01	0.07	0.872
Swiss nationality										-0.19	0.14	0.179	-0.08	0.16	0.601	-0.11	0.14	0.420	-0.08	0.15	0.570
Eu nationality										0.19	0.15	0.210	0.18	0.16	0.280	0.08	0.14	0.588	0.09	0.14	0.538
Gender (male) ⁴										-0.18	0.11	0.110	-0.13	0.12	0.265	-0.11	0.10	0.277	-0.11	0.11	0.282
Gender (diverse) ⁴										-0.58	0.37	0.114	-0.51	0.39	0.194	-0.30	0.43	0.487	-0.30	0.44	0.497
Political Ideology and Values																					
Left-Right										-0.06	0.02	0.008 **	-0.07	0.03	0.004 **	-0.06	0.02	0.015 *	-0.06	0.02	0.014 *
Egalitarian Values										0.17	0.06	0.006 **	0.12	0.08	0.124	0.11	0.07	0.103	0.11	0.07	0.102
Highest Education Parents																					
Vocational school ²										0.12	0.28	0.668	0.22	0.25	0.397	0.27	0.25	0.286	0.27	0.25	0.281
Grammar School / teacher seminar ²										0.05	0.30	0.870	0.00	0.30	0.994	0.24	0.27	0.381	0.29	0.27	0.286
Higher Vocational training ²										0.14	0.27	0.612	0.04	0.26	0.872	0.06	0.25	0.802	0.11	0.25	0.644
University ²										0.03	0.28	0.919	0.03	0.26	0.917	0.00	0.22	0.991	0.08	0.23	0.714
Other ²										0.46	0.36	0.202	0.84	0.38	0.025 *	0.57	0.32	0.069 .	0.59	0.31	0.060 .
Don't know ²										0.16	0.29	0.582	0.29	0.31	0.346	0.22	0.26	0.405	0.24	0.26	0.362
Self-interest																					
Self-assesment job prospect										0.08	0.06	0.140	0.08	0.06	0.217	0.14	0.06	0.018 *	0.14	0.06	0.017 *
Perceived socio-economic status of family										0.06	0.03	0.042 *	0.06	0.04	0.148	0.04	0.03	0.214	0.04	0.03	0.209
Hisei Parents ⁴																			0.00	0.00	0.387
Contact with unemployed																					
Contact with unemployed (yes) ³										0.14	0.12	0.253	0.23	0.14	0.095 .	0.20	0.13	0.130	0.20	0.13	0.132
Contact with unemployed (don't tell) ³										-0.06	0.19	0.758	-0.08	0.25	0.733	-0.02	0.20	0.936	-0.01	0.20	0.946
Performance Evaluations																					
Performance Evaluation [Experimentally modified]										-0.04	0.03	0.201	-0.03	0.03	0.254	-0.04	0.03	0.166	-0.04	0.03	0.173
Observations																					
										1536			1536			Pooled (100 datasets, controls imputed)			Pooled (100 datasets, controls imputed)		
												1243			1243						

Dependent Variable: Obligation - benefit cuts in case a job is turned down because it requires moving [Experimentally modified]

Independent Variable: Overall Deservingness [Experimentally modified]

Models	Baseline Model									Full Model I														
	Baseline Model Unweighted (1a)			Weighted (2a)			Weighted & Imputed (3a)			Full Model Unweighted (1b)			Weighted (2b)			Weighted & Imputed (3b)			Weighted & Imputed (3c)					
	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value			
Variables																								
Intercept:1	-1.66	0.27	0.000 ***	1.91	0.34	0.000 ***	1.87	0.35	0.000 ***	-1.02	1.06	0.336	0.19	1.42	0.892	0.15	1.19	0.903	-0.01	1.23	0.991			
Intercept:2	-0.20	0.25	0.416	0.45	0.35	0.197	0.42	0.35	0.226	0.41	1.06	0.702	-1.24	1.43	0.386	-1.34	1.22	0.274	-1.50	1.26	0.236			
Intercept:3	1.11	0.25	0.000 ***	-0.80	0.33	0.014 *	-0.83	0.33	0.012 *	1.75	1.07	0.102	-2.54	1.43	0.077	-2.64	1.22	0.030 *	-2.80	1.26	0.026 *			
Deservingness Variables																								
Deservingness (Overall)	0.25	0.06	0.000 ***	0.15	0.08	0.063	0.16	0.08	0.057	0.18	0.08	0.017 *	0.10	0.09	0.282	0.12	0.08	0.164	0.12	0.09	0.172			
Condition																								
Cond (<25) ⁵	-0.02	0.16	0.911	0.06	0.18	0.750	0.06	0.18	0.747	0.10	0.17	0.564	0.12	0.20	0.552	0.12	0.17	0.482	0.12	0.17	0.486			
Cond (>55) ⁵	0.09	0.17	0.583	0.21	0.16	0.211	0.21	0.16	0.204	0.21	0.19	0.286	0.30	0.18	0.101	0.25	0.17	0.145	0.26	0.17	0.140			
Cond (Swiss) ⁵	-0.07	0.14	0.623	0.06	0.17	0.710	0.06	0.16	0.716	0.00	0.17	0.984	0.13	0.18	0.457	0.06	0.16	0.690	0.06	0.15	0.689			
Cond (EU) ⁵	-0.02	0.13	0.901	0.08	0.18	0.662	0.08	0.18	0.669	-0.03	0.15	0.859	0.00	0.19	0.989	0.05	0.18	0.765	0.05	0.17	0.761			
Personal controls																								
Age										-0.02	0.06	0.777	0.06	0.08	0.494	0.03	0.08	0.646	0.03	0.08	0.648			
Swiss nationality										-0.10	0.13	0.413	-0.07	0.18	0.698	-0.03	0.16	0.857	-0.07	0.17	0.690			
Eu nationality										0.08	0.14	0.564	0.03	0.18	0.860	0.03	0.17	0.838	0.02	0.17	0.914			
Gender (male) ¹										-0.09	0.10	0.405	-0.10	0.13	0.410	-0.11	0.13	0.398	-0.11	0.13	0.394			
Gender (diverse) ¹										-0.14	0.48	0.768	-0.20	0.30	0.500	0.17	0.34	0.616	0.15	0.34	0.644			
Political Ideology and Values																								
Left-Right										-0.05	0.02	0.022 *	-0.06	0.02	0.007 **	-0.05	0.02	0.042 *	-0.04	0.02	0.061			
Egalitarian Values										0.12	0.06	0.028 *	0.09	0.06	0.119	0.11	0.06	0.042 *	0.11	0.06	0.046 *			
Highest Education Parents																								
Vocational school ²										0.67	0.26	0.010 *	0.79	0.30	0.007 **	0.81	0.25	0.001 **	0.81	0.25	0.001 **			
Grammar School / teacher seminar ²										0.57	0.30	0.060	0.68	0.33	0.040 *	0.57	0.27	0.038 *	0.49	0.28	0.078			
Higher Vocational training ²										0.38	0.26	0.136	0.48	0.28	0.084	0.49	0.25	0.050	0.41	0.26	0.117			
University ²										0.29	0.25	0.247	0.44	0.31	0.159	0.36	0.26	0.172	0.24	0.30	0.408			
Other ²										0.84	0.37	0.024 *	0.85	0.50	0.088	0.77	0.47	0.100	0.74	0.48	0.119			
Don't know ²										0.33	0.27	0.226	0.36	0.33	0.274	0.41	0.28	0.145	0.38	0.28	0.180			
Self-interest																								
Self-assessment job prospect										0.08	0.06	0.166	0.06	0.07	0.416	0.12	0.06	0.032 *	0.12	0.06	0.035 *			
Perceived socio-economic status of family										0.04	0.03	0.164	0.05	0.04	0.203	0.04	0.03	0.199	0.04	0.03	0.207			
Hisei Parents ⁴																			0.00	0.00	0.323			
Contact with unemployed																								
Contact with unemployed (yes) ³										0.25	0.12	0.029 *	0.36	0.15	0.016 *	0.35	0.13	0.009 **	0.35	0.14	0.009 **			
Contact with unemployed (don't tell) ³										-0.25	0.21	0.225	-0.22	0.24	0.345	-0.11	0.19	0.546	-0.11	0.19	0.544			
Performance Evaluations																								
Performance Evaluation [Experimentally modified]										-0.02	0.03	0.532	-0.01	0.02	0.630	-0.02	0.02	0.464	-0.02	0.02	0.442			
Observations		1560			1560			Pooled (100 datasets, controls imputed)			1282			1282			Pooled (100 datasets, controls imputed)			Pooled (100 datasets, controls imputed)				

Dependent Variable: Obligation - benefit cuts in case a job is turned down because it requires moving [Experimentally modified]																					
Independent Variable: CARIN-criteria Deservingness [Experimentally modified]																					
Models	Baseline Model									Full Model											
	Unweighted (1a)			Weighted (2a)			Weighted & Imputed (3a)			Unweighted (1b)			Weighted (2b)			Weighted & Imputed (3b)			Weighted & Imputed (3c)		
Variables	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value			
Intercept:1	-0.80	0.36	0.024 *	0.70	0.46	0.126	0.68	0.46	0.143	-0.54	1.11	0.626	-0.925	1.473	0.53	-0.54	1.11	0.626	-0.97	1.32	0.466
Intercept:2	0.67	0.34	0.052 .	-0.78	0.45	0.087 .	-0.79	0.46	0.087 .	0.91	1.11	0.411	-2.399	1.484	0.106	0.91	1.11	0.411	-2.47	1.36	0.069 .
Intercept:3	2.01	0.35	0.000 ***	-2.07	0.46	0.000 ***	-2.08	0.47	0.000 ***	2.28	1.12	0.042 *	-3.736	1.493	0.012 *	2.28	1.12	0.042 *	-3.80	1.36	0.005 **
Deservingness Variables																					
Control	0.15	0.05	0.002 **	0.11	0.06	0.048 *	0.13	0.06	0.023 *	0.13	0.06	0.026 *	0.08	0.07	0.237	0.12	0.06	0.032 *	0.12	0.06	0.033 *
Attitude	0.00	0.05	0.995	0.00	0.06	0.997	-0.01	0.06	0.915	-0.01	0.06	0.917	0.02	0.07	0.819	0.01	0.06	0.918	0.00	0.06	0.932
Reciprocity Past	0.17	0.06	0.003 **	0.22	0.07	0.001 ***	0.22	0.06	0.001 ***	0.12	0.06	0.059 .	0.22	0.09	0.011 *	0.18	0.07	0.007 **	0.18	0.07	0.006 **
Reciprocity Future	0.16	0.05	0.003 **	0.18	0.06	0.004 **	0.17	0.06	0.004 **	0.19	0.06	0.001 **	0.23	0.07	0.001 ***	0.17	0.06	0.003 **	0.17	0.06	0.003 **
Identity	0.00	0.05	0.933	-0.03	0.09	0.712	-0.03	0.09	0.759	-0.03	0.06	0.642	-0.09	0.10	0.377	-0.06	0.09	0.491	-0.06	0.09	0.490
Need	0.07	0.05	0.162	0.07	0.06	0.216	0.07	0.06	0.207	0.03	0.05	0.557	0.02	0.07	0.791	0.08	0.06	0.220	0.08	0.06	0.226
Condition																					
Cond (<25) ⁵	0.03	0.16	0.841	0.12	0.18	0.502	0.12	0.18	0.494	0.13	0.17	0.448	0.18	0.19	0.342	0.17	0.17	0.328	0.16	0.17	0.332
Cond (>55) ⁵	0.08	0.17	0.650	0.17	0.16	0.284	0.16	0.16	0.329	0.22	0.20	0.268	0.31	0.18	0.077 .	0.21	0.17	0.217	0.22	0.17	0.211
Cond (Swiss) ⁵	-0.07	0.15	0.638	0.06	0.18	0.752	0.08	0.17	0.645	0.01	0.17	0.953	0.12	0.20	0.544	0.07	0.17	0.669	0.07	0.16	0.669
Cond (EU) ⁵	-0.08	0.14	0.577	0.08	0.17	0.625	0.04	0.18	0.823	-0.07	0.15	0.640	0.04	0.17	0.839	0.01	0.17	0.936	0.01	0.17	0.931
Personal controls																					
Age										-0.02	0.06	0.715	0.06	0.08	0.459	0.03	0.08	0.721	0.03	0.08	0.721
Swiss nationality										-0.12	0.13	0.347	-0.09	0.17	0.622	-0.04	0.15	0.792	-0.07	0.16	0.646
Eu nationality										0.08	0.15	0.595	0.00	0.19	0.993	0.02	0.17	0.900	0.01	0.17	0.964
Gender (male) ⁴										-0.07	0.11	0.530	-0.10	0.14	0.475	-0.07	0.13	0.587	-0.07	0.13	0.580
Gender (diverse) ⁴										-0.24	0.50	0.636	-0.35	0.34	0.301	0.12	0.34	0.716	0.11	0.34	0.739
Political Ideology and Values																					
Left-Right										-0.04	0.02	0.056 .	-0.05	0.02	0.024 *	-0.04	0.02	0.110	-0.03	0.02	0.140
Egalitarian Values										0.13	0.06	0.033 *	0.10	0.05	0.043 *	0.12	0.05	0.021 *	0.12	0.05	0.023 *
Highest Education Parents																					
Vocational school ²										0.63	0.26	0.016 *	0.71	0.30	0.017 *	0.78	0.25	0.002 **	0.78	0.25	0.002 **
Grammar School / teacher seminar ²										0.52	0.31	0.090 .	0.63	0.34	0.066 .	0.56	0.28	0.044 *	0.50	0.29	0.081 .
Higher Vocational training ²										0.33	0.26	0.201	0.39	0.27	0.157	0.44	0.24	0.069 .	0.38	0.26	0.142
University ²										0.20	0.26	0.449	0.32	0.31	0.305	0.31	0.26	0.239	0.21	0.29	0.475
Other ²										0.76	0.37	0.043 *	0.73	0.52	0.157	0.72	0.47	0.122	0.70	0.47	0.141
Don't know ²										0.26	0.27	0.334	0.26	0.35	0.462	0.36	0.30	0.221	0.33	0.30	0.260
Self-interest																					
Self-assesment job prospect										0.08	0.06	0.206	0.05	0.07	0.462	0.11	0.06	0.065 .	0.11	0.06	0.069 .
Perceived socio-economic status of family										0.03	0.03	0.210	0.05	0.04	0.173	0.04	0.03	0.202	0.04	0.03	0.208
Hisei Parents ⁴																			0.00	0.00	0.379
Contact with unemployed																					
Contact with unemployed (yes) ³										0.21	0.12	0.073 .	0.30	0.14	0.033 *	0.32	0.13	0.013 *	0.33	0.13	0.013 *
Contact with unemployed (don't tell) ³										-0.29	0.20	0.153	-0.32	0.22	0.151	-0.18	0.18	0.331	-0.18	0.18	0.331
Performance Evaluations																					
Performance Evaluation [Experimentally modified]										-0.03	0.03	0.371	-0.03	0.03	0.237	-0.01	0.02	0.545	-0.01	0.02	0.528
Observations	1539			1539			Pooled (100 datasets, controls imputed)			1265			1265			Pooled (100 datasets, controls imputed)			Pooled (100 datasets, controls imputed)		

Dependent Variable: Obligation - benefit cuts in case a job is turned down because it is worse-paid [Experimentally modified]

Independent Variable: Overall Deservingness [Experimentally modified]

Models	Baseline Model									Full Model												
	Unweighted (1a)			Weighted (2a)			Weighted & Imputed (3a)			Unweighted (1b)			Weighted (2b)			Weighted & Imputed (3b)			Weighted & Imputed (3c)			
	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	
Variables																						
Intercept:1	-0.72	0.28	0.011 *	0.78	0.32	0.016 *	0.78	0.32	0.014 *	-0.99	1.09	0.364	1.64	1.11	0.140	1.52	0.88	0.084 .	1.56	0.89	0.078 .	
Intercept:2	0.95	0.28	0.001 ***	-0.92	0.30	0.002 **	-0.90	0.30	0.003 **	0.74	1.10	0.501	-0.15	1.11	0.896	-0.21	0.89	0.817	-0.16	0.90	0.860	
Intercept:3	3.13	0.30	0.000 ***	-3.01	0.30	0.000 ***	-3.00	0.30	0.000 ***	2.99	1.11	0.007 **	-2.30	1.12	0.040 *	-2.36	0.91	0.010 **	-2.31	0.91	0.012 *	
Deservingness Variables																						
Deservingness (Overall)	0.38	0.07	0.000 ***	0.38	0.07	0.000 ***	0.37	0.07	0.000 ***	0.35	0.08	0.000 ***	0.39	0.07	0.000 ***	0.37	0.07	0.000 ***	0.37	0.07	0.000 ***	
Condition																						
Cond (<25) ⁵	0.23	0.14	0.109	0.20	0.20	0.311	0.20	0.20	0.322	0.29	0.17	0.084 .	0.21	0.24	0.379	0.22	0.21	0.291	0.22	0.21	0.290	
Cond (>55) ⁵	0.21	0.13	0.109	0.18	0.17	0.299	0.17	0.17	0.308	0.30	0.17	0.075 .	0.24	0.20	0.223	0.26	0.17	0.123	0.26	0.17	0.123	
Cond (Swiss) ⁵	0.05	0.15	0.714	0.03	0.17	0.879	0.03	0.17	0.847	0.13	0.19	0.491	0.09	0.19	0.635	0.10	0.17	0.561	0.10	0.17	0.564	
Cond (EU) ⁵	0.06	0.13	0.674	0.07	0.15	0.647	0.07	0.15	0.661	0.21	0.17	0.234	0.13	0.17	0.455	0.11	0.15	0.464	0.11	0.15	0.464	
Personal controls																						
Age										0.06	0.07	0.361	0.03	0.06	0.686	0.04	0.05	0.470	0.04	0.05	0.472	
Swiss nationality										-0.45	0.14	0.001 **	-0.31	0.14	0.027 *	-0.31	0.13	0.017 *	-0.30	0.13	0.027 *	
Eu nationality										0.07	0.14	0.606	0.00	0.18	0.990	-0.05	0.16	0.751	-0.05	0.16	0.772	
Gender (male) ¹										-0.30	0.11	0.008 **	-0.31	0.15	0.036 *	-0.26	0.15	0.082 .	-0.26	0.15	0.082 .	
Gender (diverse) ¹										-0.04	0.42	0.919	-0.44	0.48	0.356	-0.57	0.43	0.185	-0.56	0.43	0.190	
Political Ideology and Values																						
Left-Right										-0.04	0.02	0.098 .	-0.03	0.02	0.173	-0.03	0.02	0.131	-0.03	0.02	0.130	
Egalitarian Values										0.08	0.06	0.210	0.04	0.06	0.507	0.04	0.05	0.465	0.04	0.05	0.463	
Highest Education Parents																						
Vocational school ²										-0.14	0.30	0.636	-0.10	0.28	0.729	-0.15	0.26	0.573	-0.15	0.26	0.577	
Grammar School / teacher seminar ²										-0.27	0.33	0.407	-0.37	0.33	0.266	-0.22	0.32	0.497	-0.20	0.33	0.553	
Higher Vocational training ²										-0.05	0.29	0.869	-0.22	0.30	0.456	-0.31	0.28	0.257	-0.29	0.29	0.314	
University ²										-0.30	0.30	0.317	-0.22	0.26	0.397	-0.30	0.26	0.244	-0.27	0.29	0.358	
Other ²										0.07	0.36	0.836	-0.08	0.47	0.860	-0.22	0.42	0.609	-0.21	0.43	0.625	
Don't know ²										-0.15	0.31	0.620	-0.30	0.36	0.415	-0.24	0.32	0.463	-0.23	0.33	0.484	
Self-interest																						
Self-assessment job prospect										-0.06	0.06	0.325	-0.10	0.07	0.129	-0.09	0.06	0.146	-0.09	0.06	0.149	
Perceived socio-economic status of family										0.01	0.03	0.862	-0.01	0.04	0.731	-0.01	0.03	0.712	-0.01	0.03	0.723	
Hisei Parents ⁴																			0.00	0.00	0.764	
Contact with unemployed																						
Contact with unemployed (yes) ³										0.14	0.12	0.245	0.25	0.16	0.118	0.29	0.14	0.040 *	0.29	0.14	0.041 *	
Contact with unemployed (don't tell) ³										0.27	0.19	0.164	0.50	0.22	0.025 *	0.39	0.18	0.032 *	0.39	0.18	0.032 *	
Performance Evaluations																						
Performance Evaluation [Experimentally modified]										-0.07	0.03	0.018 *	-0.06	0.03	0.024 *	-0.07	0.02	0.005 **	-0.07	0.03	0.006 **	
Observations	1561			1561			Pooled (100 datasets, controls imputed)			1279			1279			Pooled (100 datasets, controls imputed)			Pooled (100 datasets, controls imputed)			

Dependent Variable: Obligation - benefit cuts in case a job is turned down because it is worse-paid [Experimentally modified]																					
Independent Variable: CARIN-criteria Deservingness [Experimentally modified]																					
Models	Baseline Model									Full Model											
	Unweighted (1a)			Weighted (2a)			Weighted & Imputed (3a)			Unweighted (1b)			Weighted (2b)			Weighted & Imputed (3b)			Weighted & Imputed (3c)		
Variables	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value
Intercept:1	-0.43	0.33	0.197	0.70	0.42	0.093	0.73	0.42	0.082	-0.38	1.12	0.737	1.28	1.39	0.356	1.55	1.03	0.134	1.60	1.04	0.124
Intercept:2	1.26	0.33	0.000 ***	-1.02	0.41	0.013 *	-0.95	0.40	0.019 *	1.37	1.13	0.224	-0.54	1.39	0.699	-0.16	1.04	0.875	-0.11	1.05	0.918
Intercept:3	3.44	0.34	0.000 ***	-3.12	0.41	0.000 ***	-3.04	0.40	0.000 ***	3.62	1.14	0.001 **	-2.69	1.40	0.054 .	-2.30	1.06	0.029 *	-2.25	1.06	0.035 *
Deservingness Variables																					
Control	0.08	0.05	0.109	0.03	0.07	0.681	0.03	0.07	0.694	0.07	0.06	0.215	0.04	0.08	0.562	0.02	0.06	0.780	0.02	0.06	0.775
Attitude	0.06	0.05	0.248	0.05	0.07	0.485	0.04	0.07	0.602	0.00	0.06	0.942	0.00	0.08	0.957	0.03	0.07	0.698	0.03	0.07	0.698
Reciprocity Past	0.13	0.06	0.015 *	0.12	0.06	0.035 *	0.13	0.06	0.022 *	0.15	0.07	0.036 *	0.12	0.06	0.048 *	0.12	0.05	0.024 *	0.12	0.05	0.024 *
Reciprocity Future	0.07	0.05	0.127	0.12	0.06	0.036 *	0.12	0.06	0.027 *	0.11	0.06	0.043 *	0.16	0.07	0.023 *	0.12	0.06	0.048 *	0.12	0.06	0.047 *
Identity	0.06	0.05	0.227	0.01	0.07	0.916	0.00	0.07	0.994	0.10	0.06	0.067 .	0.06	0.07	0.412	0.00	0.07	0.962	0.00	0.07	0.964
Need	0.12	0.05	0.023 *	0.13	0.08	0.105	0.11	0.07	0.126	0.10	0.05	0.070 .	0.10	0.09	0.274	0.08	0.08	0.286	0.08	0.08	0.283
Condition																					
Cond (<25) ⁵	0.27	0.14	0.058 .	0.23	0.21	0.269	0.20	0.21	0.327	0.31	0.17	0.066 .	0.21	0.24	0.385	0.21	0.21	0.320	0.21	0.21	0.319
Cond (>55) ⁵	0.22	0.14	0.118	0.20	0.17	0.236	0.19	0.17	0.255	0.28	0.18	0.115	0.24	0.19	0.219	0.26	0.17	0.139	0.25	0.17	0.138
Cond (Swiss) ⁵	0.10	0.15	0.525	0.09	0.15	0.563	0.04	0.16	0.821	0.17	0.19	0.375	0.14	0.19	0.472	0.08	0.16	0.607	0.08	0.16	0.609
Cond (EU) ⁵	0.06	0.13	0.629	0.10	0.16	0.533	0.06	0.16	0.707	0.21	0.17	0.218	0.13	0.17	0.462	0.09	0.16	0.560	0.09	0.16	0.561
Personal controls																					
Age										0.08	0.07	0.256	0.04	0.07	0.586	0.04	0.06	0.505	0.04	0.06	0.508
Swiss nationality										-0.45	0.14	0.001 **	-0.26	0.13	0.050 *	-0.30	0.13	0.018 *	-0.29	0.13	0.030 *
Eu nationality										0.07	0.14	0.632	-0.01	0.18	0.968	-0.04	0.16	0.806	-0.03	0.16	0.832
Gender (male) ¹										-0.26	0.12	0.026 *	-0.28	0.16	0.077 .	-0.22	0.15	0.152	-0.22	0.15	0.154
Gender (diverse) ¹										-0.06	0.39	0.881	-0.41	0.47	0.384	-0.51	0.42	0.224	-0.50	0.42	0.231
Political Ideology and Values																					
Left-Right										-0.03	0.02	0.158	-0.02	0.02	0.276	-0.03	0.02	0.117	-0.03	0.02	0.114
Egalitarian Values										0.08	0.06	0.204	0.06	0.06	0.308	0.06	0.05	0.265	0.06	0.05	0.264
Highest Education Parents																					
Vocational school ²										-0.23	0.30	0.445	-0.20	0.29	0.481	-0.18	0.27	0.506	-0.18	0.27	0.510
Grammar School / teacher seminar ²										-0.41	0.33	0.215	-0.50	0.35	0.154	-0.28	0.33	0.391	-0.26	0.34	0.445
Higher Vocational training ²										-0.14	0.30	0.643	-0.31	0.30	0.294	-0.35	0.28	0.214	-0.32	0.29	0.266
University ²										-0.40	0.30	0.187	-0.32	0.27	0.236	-0.34	0.26	0.195	-0.31	0.29	0.297
Other ²										-0.10	0.37	0.792	-0.29	0.47	0.532	-0.37	0.43	0.385	-0.36	0.43	0.399
Don't know ²										-0.25	0.31	0.421	-0.39	0.38	0.297	-0.31	0.34	0.361	-0.30	0.34	0.381
Self-interest																					
Self-assessment job prospect										-0.08	0.06	0.196	-0.11	0.07	0.092 .	-0.10	0.06	0.105	-0.10	0.06	0.108
Perceived socio-economic status of family										0.00	0.03	0.998	-0.02	0.04	0.570	-0.01	0.03	0.697	-0.01	0.03	0.708
Hisei Parents ⁴																			0.00	0.00	0.713
Contact with unemployed																					
Contact with unemployed (yes) ³										0.14	0.12	0.253	0.27	0.16	0.090 .	0.30	0.14	0.026 *	0.30	0.14	0.026 *
Contact with unemployed (don't tell) ³										0.29	0.20	0.135	0.50	0.22	0.022 *	0.38	0.18	0.037 *	0.38	0.18	0.037 *
Performance Evaluations																					
Performance Evaluation [Experimentally modified]										-0.06	0.03	0.091 .	-0.04	0.03	0.179	-0.05	0.02	0.029 *	-0.05	0.02	0.032 *
Observations	1540			1540			Pooled (100 datasets, controls imputed)			1262			1262			Pooled (100 datasets, controls imputed)			Pooled (100 datasets, controls imputed)		

Dependent Variable: Social investment - reduce benefit payment to increase spending on training and education [Experimentally modified]																					
Independent Variable: Overall Deservingness [Experimentally modified]																					
Models	Baseline Model									Full Model											
	Unweighted (1a)			Weighted (2a)			Weighted & Imputed (3a)			Unweighted (1b)			Weighted (2b)			Weighted & Imputed (3b)			Weighted & Imputed (3c)		
Variables	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value			
Intercept:1	-2.89	0.29	0.000 ***	2.96	0.34	0.000 ***	2.95	0.34	0.000 ***	-0.10	1.17	0.930	0.34	1.14	0.765	1.41	1.16	0.222	1.25	1.14	0.269
Intercept:2	-0.80	0.28	0.004 **	0.84	0.30	0.006 **	0.83	0.30	0.006 **	2.04	1.16	0.079 .	-1.79	1.16	0.123	-0.74	1.16	0.523	-0.91	1.14	0.426
Intercept:3	2.09	0.29	0.000 ***	-2.02	0.28	0.000 ***	-2.03	0.28	0.000 ***	4.93	1.17	0.000 ***	-4.67	1.17	0.000 ***	-3.65	1.16	0.002 **	-3.81	1.14	0.001 ***
Deservingness Variables																					
Deservingness (Overall)	-0.12	0.07	0.098 .	-0.13	0.08	0.105	-0.12	0.08	0.114	-0.11	0.09	0.222	-0.13	0.08	0.111	-0.13	0.08	0.103	-0.14	0.08	0.101
Condition																					
Cond (<25) ⁵	0.11	0.14	0.433	0.02	0.19	0.923	0.01	0.19	0.977	0.17	0.16	0.303	0.15	0.22	0.485	0.08	0.19	0.694	0.07	0.19	0.697
Cond (>55) ⁵	-0.50	0.15	0.001 ***	-0.48	0.17	0.004 **	-0.48	0.17	0.004 **	-0.53	0.19	0.004 **	-0.49	0.22	0.024 *	-0.46	0.18	0.012 *	-0.45	0.18	0.013 *
Cond (Swiss) ⁵	0.00	0.15	0.990	-0.12	0.19	0.524	-0.13	0.19	0.503	0.01	0.18	0.954	-0.07	0.21	0.752	-0.08	0.20	0.683	-0.08	0.20	0.686
Cond (EU) ⁵	0.19	0.15	0.198	0.19	0.17	0.282	0.19	0.17	0.270	0.15	0.17	0.383	0.20	0.20	0.312	0.21	0.19	0.257	0.22	0.19	0.255
Personal controls																					
Age										0.08	0.07	0.242	0.07	0.07	0.296	0.01	0.07	0.864	0.01	0.07	0.860
Swiss nationality										-0.05	0.14	0.722	0.01	0.16	0.961	0.03	0.16	0.836	0.00	0.16	0.980
Eu nationality										-0.01	0.13	0.937	-0.15	0.14	0.291	-0.19	0.14	0.173	-0.20	0.14	0.141
Gender (male) ¹										0.01	0.11	0.963	0.04	0.13	0.748	-0.01	0.12	0.913	-0.01	0.12	0.905
Gender (diverse) ¹										-0.30	0.37	0.421	-0.26	0.38	0.495	-0.12	0.36	0.738	-0.14	0.37	0.708
Political Ideology and Values																					
Left-Right										0.00	0.02	0.945	-0.01	0.02	0.749	-0.01	0.02	0.538	-0.01	0.02	0.619
Egalitarian Values										0.03	0.07	0.651	0.09	0.07	0.194	0.11	0.06	0.079 .	0.11	0.06	0.081 .
Highest Education Parents																					
Vocational school ²										0.69	0.26	0.008 **	0.88	0.27	0.001 **	0.77	0.27	0.005 **	0.77	0.27	0.005 **
Grammar School / teacher seminar ²										0.26	0.31	0.397	0.27	0.26	0.291	0.30	0.28	0.286	0.23	0.28	0.410
Higher Vocational training ²										0.64	0.26	0.014 *	0.86	0.25	0.001 ***	0.77	0.27	0.004 **	0.71	0.28	0.013 *
University ²										0.69	0.26	0.008 **	0.79	0.28	0.004 **	0.67	0.29	0.019 *	0.57	0.31	0.071 .
Other ²										0.21	0.31	0.504	0.36	0.36	0.311	0.41	0.34	0.229	0.38	0.34	0.258
Don't know ²										0.60	0.27	0.028 *	0.85	0.25	0.001 ***	0.72	0.26	0.006 **	0.69	0.26	0.009 **
Self-interest																					
Self-assessment job prospect										0.17	0.06	0.008 **	0.14	0.07	0.044 *	0.12	0.06	0.050 *	0.12	0.06	0.056 .
Perceived socio-economic status of family										0.04	0.03	0.243	0.01	0.03	0.840	0.00	0.03	0.935	0.00	0.03	0.968
Hisei Parents ⁴																			0.00	0.00	0.299
Contact with unemployed																					
Contact with unemployed (yes) ³										-0.20	0.13	0.128	-0.28	0.13	0.033 *	-0.15	0.13	0.225	-0.15	0.13	0.246
Contact with unemployed (don't tell) ³										0.33	0.20	0.099 .	0.22	0.19	0.246	0.16	0.20	0.421	0.16	0.20	0.425
Performance Evaluations																					
Performance Evaluation [Experimentally modified]										0.04	0.03	0.210	0.02	0.04	0.495	0.01	0.03	0.709	0.01	0.03	0.726
Observations	1553			1553			Pooled (100 datasets, controls imputed)			1282			1282			Pooled (100 datasets, controls imputed)			Pooled (100 datasets, controls imputed)		

Dependent Variable: Social Investment - reduce benefit payment to increase spending on training and education [Experimentally modified]																					
Independent Variable: CARIN-criteria Deservingness [Experimentally modified]																					
Models	Baseline Model									Full Model											
	Unweighted (1a)			Weighted (2a)			Weighted & Imputed (3a)			Unweighted (1b)			Weighted (2b)			Weighted & Imputed (3b)			Weighted & Imputed (3c)		
Variables	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value	Est	StdErr	p-Value			
Intercept:1	-2.53	0.38	0.000 ***	2.63	0.44	0.000 ***	2.68	0.42	0.000 ***	0.10	1.15	0.929	0.07	1.15	0.955	1.28	1.16	0.269	1.13	1.14	0.321
Intercept:2	-0.42	0.36	0.243	0.50	0.43	0.245	0.55	0.42	0.192	2.26	1.14	0.048 *	-2.08	1.18	0.078 .	-0.88	1.17	0.452	-1.03	1.15	0.369
Intercept:3	2.49	0.38	0.000 ***	-2.39	0.45	0.000 ***	-2.31	0.44	0.000 ***	5.19	1.15	0.000 ***	-5.00	1.20	0.000 ***	-3.79	1.18	0.001 **	-3.94	1.16	0.001 ***
Deservingness Variables																					
Control	0.12	0.05	0.018 *	0.10	0.06	0.065 .	0.11	0.06	0.051 .	0.10	0.06	0.080 .	0.06	0.07	0.381	0.10	0.06	0.106	0.09	0.06	0.113
Attitude	-0.01	0.05	0.898	-0.03	0.07	0.676	-0.05	0.06	0.471	0.02	0.06	0.763	0.02	0.08	0.765	-0.05	0.07	0.494	-0.05	0.07	0.488
Reciprocity Past	-0.02	0.06	0.758	-0.06	0.07	0.448	-0.06	0.07	0.382	-0.09	0.07	0.152	-0.14	0.09	0.094 .	-0.08	0.07	0.259	-0.08	0.07	0.252
Reciprocity Future	-0.08	0.05	0.100	-0.08	0.06	0.208	-0.08	0.06	0.226	-0.09	0.06	0.108	-0.07	0.07	0.347	-0.07	0.06	0.257	-0.07	0.06	0.244
Identity	0.02	0.05	0.704	0.05	0.06	0.444	0.04	0.06	0.472	-0.01	0.06	0.873	0.02	0.06	0.738	0.01	0.06	0.801	0.01	0.06	0.805
Need	-0.04	0.05	0.440	-0.01	0.06	0.840	0.00	0.06	0.953	0.01	0.07	0.830	0.04	0.08	0.634	0.00	0.07	0.997	0.00	0.07	0.998
Condition																					
Cond (<25) ⁵	0.11	0.14	0.413	0.03	0.20	0.902	0.01	0.20	0.966	0.18	0.16	0.273	0.16	0.23	0.494	0.07	0.20	0.737	0.07	0.20	0.744
Cond (>55) ⁵	-0.57	0.15	0.000 ***	-0.51	0.17	0.003 **	-0.50	0.17	0.004 **	-0.54	0.19	0.005 **	-0.44	0.21	0.038 *	-0.47	0.18	0.011 *	-0.46	0.18	0.012 *
Cond (Swiss) ⁵	0.02	0.15	0.871	-0.13	0.21	0.530	-0.12	0.20	0.526	0.02	0.19	0.910	-0.08	0.23	0.717	-0.08	0.20	0.683	-0.08	0.20	0.685
Cond (EU) ⁵	0.17	0.15	0.271	0.19	0.20	0.346	0.16	0.18	0.399	0.14	0.18	0.426	0.23	0.23	0.325	0.18	0.20	0.365	0.18	0.20	0.360
Personal controls																					
Age										0.08	0.07	0.264	0.08	0.07	0.285	0.01	0.07	0.878	0.01	0.07	0.873
Swiss nationality										-0.01	0.14	0.945	0.03	0.17	0.860	0.01	0.16	0.940	-0.03	0.16	0.877
Eu nationality										0.06	0.14	0.671	-0.07	0.14	0.624	-0.18	0.13	0.173	-0.20	0.13	0.141
Gender (male) ¹										0.00	0.11	0.983	0.02	0.13	0.876	-0.03	0.13	0.820	-0.03	0.13	0.805
Gender (diverse) ¹										-0.32	0.37	0.391	-0.27	0.41	0.509	-0.16	0.37	0.673	-0.17	0.37	0.647
Political Ideology and Values																					
Left-Right										0.00	0.02	0.911	-0.01	0.02	0.738	-0.01	0.02	0.650	-0.01	0.02	0.732
Egalitarian Values										0.02	0.07	0.760	0.06	0.07	0.430	0.10	0.06	0.082 .	0.10	0.06	0.085 .
Highest Education Parents																					
Vocational school ²										0.77	0.25	0.002 **	0.96	0.28	0.001 ***	0.79	0.28	0.005 **	0.79	0.28	0.005 **
Grammar School / teacher seminar ²										0.42	0.31	0.173	0.40	0.28	0.143	0.38	0.29	0.188	0.32	0.29	0.281
Higher Vocational training ²										0.75	0.25	0.003 **	0.99	0.26	0.000 ***	0.81	0.27	0.003 **	0.75	0.29	0.010 **
University ²										0.79	0.26	0.002 **	0.88	0.28	0.002 **	0.71	0.30	0.016 *	0.61	0.32	0.061 .
Other ²										0.33	0.32	0.297	0.50	0.38	0.185	0.49	0.35	0.156	0.47	0.35	0.180
Don't know ²										0.75	0.27	0.006 **	1.01	0.29	0.001 ***	0.78	0.27	0.004 **	0.75	0.27	0.006 **
Self-interest																					
Self-assesment job prospect										0.19	0.07	0.005 **	0.17	0.07	0.013 *	0.13	0.06	0.038 *	0.13	0.06	0.043 *
Perceived socio-economic status of family										0.03	0.03	0.291	0.00	0.04	0.917	0.00	0.03	0.991	0.00	0.03	0.956
Hisei Parents ⁴																			0.00	0.00	0.298
Contact with unemployed																					
Contact with unemployed (yes) ³										-0.20	0.13	0.123	-0.30	0.14	0.032 *	-0.15	0.12	0.207	-0.15	0.12	0.228
Contact with unemployed (don't tell) ³										0.26	0.20	0.202	0.17	0.19	0.373	0.17	0.20	0.402	0.16	0.20	0.405
Performance Evaluations																					
Performance Evaluation [Experimentally modified]										0.03	0.03	0.324	0.02	0.04	0.612	0.01	0.04	0.824	0.01	0.04	0.842
Observations	1532			1532			Pooled (100 datasets, controls imputed)			1264			1264			Pooled (100 datasets, controls imputed)			Pooled (100 datasets, controls imputed)		

Notes: Exp. modified = Experimentally modified. A p-value of 0.000 in the table refers to values < 0.001 . Where possible, robust standard errors were calculated. For details on the weighted models, see Lumley (2023a, b). For the unweighted linear models, the “vcovHC” function from the “sandwich” package was used to obtain heteroscedasticity-consistent estimators. For the ordered regression models, bootstrapping techniques (1000 resamples) were used. Missing control variables were imputed using the Multiple Imputation by Chained Equations (MICE) method, using predictive mean matching as the prediction algorithm. A total of 100 imputed datasets were generated, each undergoing 100 iterations to ensure convergence and robustness of the imputation. Only control variables were subject to imputation. For more details see the prediction matrix used for the imputation process. 1 reference category = female; 2 reference category = obligatory school; 3 reference category = contact with unemployed (no); 4 Due to a relatively high missing rate for the “hisei” variable (42.7%), this variable was only included as a robustness check in another full weighted and imputed model (3c) to minimise bias in the unimputed models (1b and 2b). The missingness primarily resulted from inaccuracies in some of the students’ responses, making it impossible to code their parents’ occupation in line with the ISCO 08 definitions (e.g., if the occupational description was “office job” or if only the name of a company was given as answer). 5 reference category = baseline condition.

VI.1.5 A5: Weighting and Multiple Imputation

All weighted analyses rely on the “survey” R-package (Ellis, 2023), accounting for the complex survey structure. For a more accurate estimation of population means, raking weights based on gender, canton, school year, school type and Swiss nationality were implemented in the survey design object.⁴³ Raking weight calculation followed the methodological advice described by DeBell (2018) and DeBell and Krosnick (2009) and is based on data from the Swiss Federal Statistical Office (BFS, 2023a), complemented where necessary by data from the cantonal educational departments (see Appendix A5 for sample and population proportions used for calculating the raking weights).

Scholars also started to discuss more thoroughly the usage of weights in the analysis of survey experiments and the estimation of causal effects (cf. DeBell, 2010; Lavallée and Beaumont, 2015; Miratrix et al., 2018; Solon et al., 2015), which is relevant for testing hypotheses *H1*, *H4*, *H5*. Starting with the analysis of the survey experiment results (*H4*, *H5*), both the estimates and significance levels of the unweighted and weighted analyses are considered, and robust standard errors are used where possible to increase the robustness of results (cf. Solon et al. 2015). The reported estimates, standard errors and p-values in the text and tables are the ones from the weighted analyses, as this represented the more conservative approach in direct comparison with the unweighted results, i.e., although indicating the same trends, results were less often significant for the weighted data.⁴⁴

Two baseline models were considered for the (linear and ordered) regression models (*H1*): one for overall deservingness and one for the CARIN criteria. Next, both baseline models were extended by adding the following covariates: age, sex, welfare state performance (living standard of unemployed, experimentally modified, scale 0-10), political ideology (left-right 11-point-scale), egalitarian values (5-point Likert item), nationality (Swiss), nationality (EU), self-assessment of future job prospects (5 point scale from very unlikely to very likely), highest education of parents, self-assessment of the family’s position in society (11-point numerical scale), and contact to unemployed people. Those variables relate to important explanatory frameworks in the literature on deservingness and welfare attitudes: self-interest, political ideology, political values, and performance evaluations (cf. Laenen, 2020).

As for the analyses of the survey experiment, unweighted and weighted regression models were considered to increase the robustness of results. Additionally, multiple imputation was applied to account for missing data, as it offers strong advantages over list- or pairwise

⁴³ Due to considerable cantonal variations in educational systems, a binary variable was employed for school levels (0 – basic; 1 – medium/higher), consistent with the official student statistics, see: BFS, 2023a. Furthermore, the presence of students attending different school types within the same class in some cantons, in conjunction with varying sampling strategies based on canton size, makes the calculation and use of base weights inherently risky in terms of introducing bias. Consequently, all analyses rely solely on raking weights derived from official statistics.

⁴⁴ The results of the unweighted survey experiment analysis are available upon request.

deletion (cf. Jakobsen et al., 2017; Rubin, 2004; van Buuren, 2018; van Ginkel et al., 2020; Woods et al., 2023). The multiple imputation process was performed via the MICE algorithm, relying on fully conditional specification (FCS) (Buuren and Groothuis-Oudshoorn, 2011), predictive mean matching for numerical variables (pmm), polytomous regression for ordinal (polr) and nominal variables (polyreg), 100 datasets and 100 iterations (prediction matrix is detailed in Appendix A4). All weighted and weighted and imputed regression models (linear and ordered) incorporate design-based or “model-robust” standard errors (Ellis, 2023; Lumley, 2023b). The unweighted, unimputed models also rely on robust standard errors. In the paper, the results of the pooled imputed weighted regressions are reported as this approach is superior to only relying on multiple imputations (cf. Quartagno et al., 2020). The results of all regression models (unweighted 1a-b, weighted 2a-b, weighted and imputed 3a-c) are detailed in Appendix A3 and A4.

VI.1.6 A6: Prediction Matrix Used for Multiple Imputation

The following R code was used to create the prediction matrix used for the multiple imputation calculation :

```
# Create predictor matrix
```

```
predictorMatrix <- make.predictorMatrix(df)
```

```
# set predictor matrix to 0
```

```
predictorMatrix[, ] <- 0
```

```
# Specify variables to be predicted and variables to be used for the prediction
```

```
# Set the corresponding elements of the predictor matrix to 1
```

```
predictorMatrix["hisei", c("sctyp_b", "swiss", "cwun", "edf", "edm", "soccl", "eu", "infp", "job")] <- 1
```

```
predictorMatrix["edf", c("edm", "sctyp_b", "swiss", "cwun", "soccl", "eu", "infp")] <- 1
```

```
predictorMatrix["edm", c("edf", "sctyp_b", "swiss", "cwun", "soccl", "eu", "infp")] <- 1
```

```
predictorMatrix["hed", c("edm", "edf", "sctyp_b", "swiss", "cwun", "soccl", "eu", "infp")] <- 1
```

```
predictorMatrix["lr", c("ega", "gender", "edm", "edf", "soccl", "swiss", "sctyp_b", "canton", "infp", "inff", "infi", "infs")] <- 1
```

```
predictorMatrix["job", c("edm", "edf", "cwun", "swiss", "eu", "gender", "sctyp_b", "ur")] <- 1
```

```
predictorMatrix["ega", c("lr", "gender", "edm", "edf", "soccl", "swiss", "eu", "infp", "inff", "infi", "infs")] <- 1
```

```
predictorMatrix["cwun", c("edm", "edf", "soccl", "sctyp_b", "swiss", "eu", "age", "canton")] <- 1
```

```
predictorMatrix["plsC", c("ega", "lr", "cwun", "gender", "edm", "edf", "cond", "infp")] <- 1
```

```
predictorMatrix["soccl", c("edm", "edf", "sctyp_b", "swiss", "eu", "job", "infp", "inff", "canton", "gender", "cwun", "ur")] <- 1
```

```
predictorMatrix["doC", c("dcC", "daC", "drpC", "drfC", "diC", "dnC", "swiss", "eu", "ega", "lr", "cond", "gender", "cwun", "edm", "edf", "age")] <- 1
```

```
predictorMatrix["dcC", c("doC", "daC", "drpC", "drfC", "diC", "dnC", "swiss", "eu", "ega", "lr", "cond", "gender", "cwun", "edm", "edf", "age")] <- 1
```

```
predictorMatrix["daC", c("dcC", "doC", "drpC", "drfC", "diC", "dnC", "swiss", "eu", "ega", "lr", "cond", "gender", "cwun", "edm", "edf", "age")] <- 1
```

```
predictorMatrix["drpC", c("dcC", "daC", "doC", "drfC", "diC", "dnC", "swiss", "eu", "ega", "lr", "cond", "gender", "cwun", "edm", "edf", "age")] <- 1
```

```
predictorMatrix["drfC", c("dcC", "daC", "drpC", "doC", "diC", "dnC", "swiss", "eu", "ega", "lr", "cond", "gender", "cwun", "edm", "edf", "age")] <- 1
```

```
predictorMatrix["diC", c("dcC", "daC", "drpC", "drfC", "doC", "dnC", "swiss", "eu", "ega", "lr", "cond", "gender", "cwun", "edm", "edf", "age")] <- 1
```

```
predictorMatrix["dnC", c("dcC", "daC", "drpC", "drfC", "diC", "doC", "swiss", "eu", "ega", "lr", "cond", "gender", "cwun", "edm", "edf", "age")] <- 1
```

```
predictorMatrix["siC", c("doC", "dcC", "daC", "drpC", "drfC", "diC", "dnC", "swiss", "eu", "job", "ega", "lr", "plsC", "cond", "gender", "cwun", "edm", "edf", "soccl", "age")] <- 1
```

```
predictorMatrix["oeC", c("omC", "opC", "doC", "dcC", "daC", "drpC", "drfC", "diC", "dnC", "swiss", "eu", "job", "ega", "lr", "plsC", "cond", "gender", "cwun", "edm", "edf", "soccl", "age")] <- 1
```

```
predictorMatrix["omC", c("oeC", "opC", "doC", "dcC", "daC", "drpC", "drfC", "diC", "dnC", "swiss", "eu", "job", "ega", "lr", "plsC", "cond", "gender", "cwun", "edm", "edf", "soccl", "age")] <- 1
```

```
predictorMatrix["opC", c("oeC", "omC", "doC", "dcC", "daC", "drpC", "drfC", "diC", "dnC", "swiss", "eu", "job", "ega", "lr", "plsC", "cond", "gender", "cwun", "edm", "edf", "soccl", "age")] <- 1
```

```
predictorMatrix["rgjC", c("rglsC", "doC", "dcC", "daC", "drpC", "drfC", "diC", "dnC", "swiss", "eu", "job", "ega", "lr", "plsC", "cond", "gender", "cwun", "edm", "edf", "soccl", "age")] <- 1
```

```
predictorMatrix["rglsC", c("rgjC", "doC", "dcC", "daC", "drpC", "drfC", "diC", "dnC", "swiss", "eu", "job", "ega", "lr", "plsC", "cond", "gender", "cwun", "edm", "edf", "soccl", "age")] <- 1
```

```
predictorMatrix["duC", c("rrC", "doC", "dcC", "daC", "drpC", "drfC", "diC", "dnC", "swiss", "eu", "job", "ega", "lr", "plsC", "cond", "gender", "cwun", "edm", "edf", "soccl", "age")] <- 1
```



```

predictorMatrix["rrC", c("duC","doC","dcC","daC","drpC","drfC","diC","dnC","swiss","eu","job","ega","lr","plsC","cond","gender","cwun","edm","edf","soccl","age")] <- 1

# abbreviations: hisei (Highest Socioeconomic Status); sctyp_b (school type binary),
# cwum (contact to unemployed people in family, friends, acquaintances group),
# hed (highest education parents), edm (education mother), edf (education father)
# soccl (self-assesment family position in society), eu (Eu nationality),
# infp (frequency of talking about politics with parents), inff (frequency of talking about politics with peers),
# infi (searching for political news in the internet)
# job (self-assesment of job prospects), lr (self-assesment on left-right scale)
# ega (agreement to egalitarian value item), gender (gender), ur (unemployment rate)
# canton

# hisei was not used for predicting other variables due to high missing rate in the original dataset + it inflated the FMI for
variables when being used; it is not used to obtain more reliable results

#infs (frequency of talking about politics in school)
#rglsC (role of government living standard), rgjC (role of government job)
# duC (benefit duration), rrC (replacement rate)
# oeC (benefit cut job refusal due to lower educational level), opC (benefit cut job refusal due to lower payment)
# omC (benefit cut job refusal due to don't want to move), siC (reduce benefit payment to increase spending on training)
# doC (overall deservingness), dcC (control), daC (attitude), drpC (reciprocity past), drfC (reciprocity future), diC (identity)
# dnC (need)

#defined methods vector
method_vector <- rep("pmm", ncol(df)) # Start with PMM as the default for all variables
nominal_vars <- c("hed", "edf", "edm", "cwun")
ordinal_vars <- c("oeC","omC","opC","siC")
# Set nominal variables to use "polyreg"
for (var in nominal_vars) {
  method_vector[names(df) == var] <- "polyreg"
}
# Set nominal variables to use "polyreg" or "logreg" as appropriate
for (var in ordinal_vars) {
  method_vector[names(df) == var] <- "polr"
}
method_vector <- rep("pmm", ncol(df)) # Start with PMM as the default for all variables as most controls are numerical
nominal_vars <- c("hed", "edf", "edm", "cwun")
# Set nominal variables to use "polyreg"
for (var in nominal_vars) {
  method_vector[names(df) == var] <- "polyreg" }
# create 100 datasets (m=100), with a maximum of 100 iterations (maxit=100)
# perform the imputation
impu <- mice(df, m=100, maxit=100, method=method_vector, predictorMatrix=predictorMatrix, seed=123, parallel=TRUE)

```

VI.1.7 A7: Sample and Population Proportions Used for the Raking Weights Calculation

Gender	Sample	Population	Canton	Sample	Population	Grade	Sample	Population	Nationality	Sample	Population	School type	Sample	Population
Female	48.72%	47.41%	Argovia	8.56%	14.95%	8	52.03%	49.96%	Not Swiss	24.73%	22.86%	Basic	24.80%	31.19%
Male	48.78%	50.09%	Berne	20.86%	18.85%	9	47.97%	50.04%	Swiss	75.27%	77.15%	Medium/Higher	75.20%	68.81%
Diverse/Oth.	2.50%	2.50%	Lucerne	10.06%	8.74%									
			StGall	17.55%	10.51%									
			Zuriche	16.55%	30.40%									
			Nidwald	1.06%	0.83%									
			Appenzell OR	2.50%	1.05%									
			Zug	3.12%	2.55%									
			Fribourg	2.00%	1.84%									
			Uri	5.75%	0.73%									
			Glarus	3.06%	0.87%									
			Solothurn	2.25%	5.21%									
			Obwald	3.87%	0.84%									
			Grisons	2.81%	2.64%									

Note: Slight deviations from Swiss official statistics are caused by cantonal coverage and inclusion of only German-speaking schools in multilingual cantons (e.g., Berne, Grison, Fribourg). Furthermore, the official gender classifications recognize 'male' and 'female' categories. To incorporate individuals not identifying with these options into the weighting and analysis, the methodology outlined by Battaglia et al. (2009) was adopted, leading to an adjustment to the population benchmarks.

VII.2 Appendix Paper 3: Misinformed Deservingness? Assessing Youth Competence in Welfare Support Decisions

VI.2.1 A1: Survey Items⁴⁵

Task I: Belief-Deservingness Association

Overall Deservingness of the Unemployed and other primary target groups

○ Item 1: Overall Deservingness Primary Target Groups

For each of the following groups, indicate the extent to which they deserve to receive social welfare from the government.

1) Unemployed

2) Sick

3) The elderly (pensioners)

4) People with disabilities

5) Families with kids

6) Social assistance recipients

Answer options: Do not deserve it at all/ Do not deserve it/ Undecided/ Deserve it/ Fully deserve it

○ Item 2: Overall Deservingness Unemployed

What would you say: To what extent do most *unemployed people* deserve to receive social welfare from the government?

Answer options^{Reversed}: Do not deserve it at all/ Do not deserve it/ Undecided/ Deserve it/ Fully deserve it.

Comment on the *Overall deservingness of the unemployed and other primary target groups*: 76 % of the participants responded to item 1 and were not shown item 2. The remaining 24% of the participants first responded to item 2 and then to item 1 (without the unemployed as an answer option). The split was necessary for a survey experiment investigated in another study (see Sowula, 2024a) as part of a larger associated research project. Responses on the deservingness of the unemployed from both items were combined and used as the dependent variable in Task I (deservingness evaluations of the unemployed).

Qualitative Questions: Expenditures (Q1-Q2)

○ Item Q1: Highest spending

Below, you see some social security areas on which the government spends money. What do you think: What area has the largest amount of money spent on?

Answer options: Sickness/ Families(Kids)/ Unemployment/ Disability/ Old age (pensions).

○ Item Q1c: Confidence in Q1

How confident are you in your answer?

Answer options: My answer is certainly correct/ My answer is probably correct/ I don't know the answer. I have guessed.

○ Item Q2: Lowest spending

And what do you think: What area has the lowest amount of money spent on?

Answer options: Sickness/ Families(Kids)/ Unemployment/ Disability/ Old age (pensions).

⁴⁵ For the original questions in German, please contact the corresponding author. Translations conveying the meaning of the original items were favored over literal translations.

○ Item Q1c: Confidence in Q2

How confident are you in your answer?

Answer options: My answer is certainly correct/ My answer is probably correct/ I don't know the answer. I have guessed.

Comment to Q1 and Q2: For the analysis, the responses of Q1 and Q1c, as well as Q2 and Q2c, were combined to mimic the style of the other qualitative items (Q3-Q10).

Qualitative Questions: Institutional rules (Q3-Q10)

○ Item Q3: Existence of Eligibility rules

Picture the following: Elias is unemployed and would like to receive unemployment benefits. State whether the following statement is true or false: "Elias must fulfill certain requirements/criteria to receive unemployment benefits. If he does not fulfill them, he cannot receive unemployment benefits."

Answer options: The statement is certainly true/ The statement is probably true/ I don't know/ The statement is probably false/ The statement is certainly false.

○ Item Q4: Eligibility after finishing education

Picture the following: Nina has just finished several years of education/training. She wants to register as unemployed with the Regional Employment Center (RAV) to receive unemployment benefits until she finds her first job. Indicate whether the following statement is true or false: "Nina will receive unemployment benefits."

Answer options: The statement is certainly true/ The statement is probably true/ I don't know/ The statement is probably false/ The statement is certainly false.

○ Items Q5-Q9

Lea is Swiss and has worked for the last 4 years, earning CHF 4000 monthly. She has been unemployed since last week. She is 35 years old and has no children. She has registered as unemployed with the Regional Employment Center (RAV) and will now receive unemployment benefits. For each of the following statements, indicate whether they are true or false:

Q5: Obligations – Sanctions for job refusal Lea must accept any job offer from the RAV, even if it pays less than her previous job. If she refuses, she will lose part of her unemployment benefit.

Q6: Eligibility -Nationality Lea only receives unemployment benefits because she is Swiss. If she only had a passport from an EU country instead, she would NOT receive unemployment benefits.

Q7: Replacement rate - Children Lea would receive a higher unemployment benefit if she had children.

Q8: Replacement Rate - Maximum Lea will receive a maximum of half (50%) of her last salary through her unemployment benefit. This means that Lea will receive a maximum of CHF 2000 monthly.

Q9: Benefit Duration Lea can get unemployment benefits for a maximum of two years.

Answer options: The statement is certainly true/ The statement is probably true/ I don't know/ The statement is probably false/ The statement is certainly false.

○ Item Q10: Social assistance

State whether the following statement is true or false: "Unemployment benefit is the same as social assistance."

Answer options: The statement is certainly true/ The statement is probably true/ I don't know/ The statement is probably false/ The statement is certainly false.

Estimation Tasks: Outcomes (Q11-Q13)

○ Q11: Unemployment rate - adapted from ESS round 8 (2016)

Of every 100 people of working age in Switzerland how many would you say are unemployed and looking for work?

Answer options: Scale 0-100.

○ Q11c: Confidence in Q11

How confident are you in your answer?

Answer options: My answer is certainly correct/ My answer is probably correct/ I don't know the answer. I have guessed.

○ Q12: Benefit overuse

And how many out of 100 people who receive unemployment benefits, receive them improperly?

Answer options: Scale 0-100.

○ Q12c: Confidence in Q12

How confident are you in your answer?

Answer options: My answer is certainly correct/ My answer is probably correct/ I don't know the answer. I have guessed.

○ Q13: Poverty among the unemployed

Now think of all the unemployed people in Switzerland.

What would you say: Out of 100 unemployed people in Switzerland, how many are poor?

A person living alone is considered poor if they have less than ~ CHF 2,300 monthly income.

Answer options: Scale 0-100.

○ Q13c: Confidence in Q13

How confident are you in your answer?

Answer options: My answer is certainly correct/ My answer is probably correct/ I don't know the answer. I have guessed.

Control items used in the full regression models for task I (All beliefs + control ~ deserving-ness)

○ Age:

How old are you?

Answer options: 13/ 14/ 15/ 16/ 17/ other.

○ Gender:

You are ...

Answer options: Male/ female/ diverse/ prefer not to say.

○ Nationality:

What is your nationality?

Multiple answers are possible.

Answer options: multiple country options and one open answer field for other countries.

Comment: This item is used to create the variable Swiss nationality and EU-country nationality.

○ Left-right – adapted from ESS 2016 (round 8):

In politics, people sometimes talk about “left” and “right”. Where would you classify yourself if 0 stands for left and 10 for right?

Answer options: 0 – left, 10 – right (scale).

- Egalitarian values:

And to what extent do you agree or disagree with this statement: "For a society to be fair, differences in people's standard of living should be small."

Answer options: Do not agree at all/ do not agree/ neither nor/ agree/ fully agree.

- Self-assessment of job prospects:

And what would you say: How likely will you find a steady job after your education?

Answer options: Very unlikely/ unlikely/ neither nor/ likely/ very likely.

- School type

What school type are you attending this school year?

For example (depending on the canton): Sek A, Sek B, Sek C, Realschule, Sekundarschule, Spez. Sek, Sek E, Sek P, Gymnasium, Orientierungsschule (Stammklasse A), Orientierungsschule (Stammklasse B), etc.

Answer options: 0 – left, 10 – right (scale).

- Highest education parents:

What is the highest education your father/mother has completed? (two individual questions)

If you have no/very little contact with your biological parents, please answer the question for the person who is like a father/mother to you.

Answer options: Mandatory schooling/ Vocational training or full-time vocational school/ Matura school; seminar for teachers/ Higher technical and vocational education/ University/ Other/ Don't know.

Comment to highest-education parents: The variable is obtained by combining information from two individual items: the father's highest education and the mother's education (or persons who fulfilled the equivalent role). The variable was combined to increase analysis efficiency and avoid potential collinearity issues. The options "other" and "don't know" were only selected in case no other information was available to increase the precision of the measurement.

- Self-assessment of the socioeconomic position of the family:

In our society, some groups are better off than others. Below, you see a scale that goes from "0 - worst off" to "10 - best off". Where on this scale would you place yourself and your family?

Answer options: 0 – worst off; 10 – best off (scale).

- Contact to unemployed people:

I have or have had contact with unemployed people in my family, friends or acquaintances.

Answer options: Yes/ no/ prefer not to say.

Task II: Performance Standard and Sources of Influential Misinformation

Misinformation index

Comment: The misinformation index incorporates information from the following items: Q3, Q5, Q6, Q7, Q9, Q11/c, Q12/c. As outlined in the paper's methods section, each item feeds into the index with a score between 0 and 1. Hence, the index ranges from 0 to 7. The items Q3, Q5, Q6, Q7, and Q9 are incorporated into the index in a binary way (0 = informed/uninformed; 1 = misinformed), and the responses to the estimation tasks for the unemployment rate and benefit overuse are introduced into the index by relying on the design from the *estimation_{mis}* variables (see method section for more information). The misinformation index is used as the performance standard to evaluate the student's competence and as the dependent variable to explore the potential sources of influential misinformation.

Potential predictors of misinformation

- For gender, school type, Swiss citizenship, political orientation (left-right scale), and contact with the unemployed, see above.

- Interest in politics and social policy - partly adapted from ESS 2016 (round 8)

How interested would you say you are in:

Social policy	... social policy (i.e., policies that deal with all kinds of social security topics like pensions, unemployment, etc.)
Politics	... politics in general (e.g., elections, votes and initiatives, laws, relations with other countries, etc.)

Answer options: Very interested/ Quite interested / Hardly interested/ Not at all interested.

- Engagement with socialization agents about political issues –adapted from the International Civic and Citizenship Education Study 2016 (IEA-International Association For The Evaluation Of Educational Achievement, 2018)

How often are you involved in each of the following activities?

Parents	Talking with your parent(s) about political issues
Friends	Talking with your friends about political issues
Internet	Using the internet outside of school to find information about political issues.
School	Talking about political issues in school lessons.

Answer options: The statement is certainly true/ The statement is probably true/ I don't know/ The statement is probably false/ The statement is certainly false.

VI.2.2 A2: Summary Statistics

Task I: Belief-Deservingness Association

Deservingness							
Item		Weighted Mean	Weighted Stand. Dev.	Weighted Median	Min	Max	Valid N
Overall Deservingness	Elderly	3.866	0.889	4	1	5	1507
	Sick	4.199	0.913	4	1	5	1508
	Disabled	4.271	0.931	5	1	5	1506
	Families	4.006	0.902	4	1	5	1507
	Unemployed	3.442	0.884	4	1	5	1511
	Social assistance recipients	3.557	0.867	4	1	5	1502
Belief items qualitative questions (Q1-Q10)							
Item		Weighted Proportion.		Weighted Median	Min	Max	Valid N
Q1: Highest Spending	1 Correct & certainly right	0.004					
	2 Correct & probably right	0.070					
	3 Don't Know/Guess	0.251		4	1	5	1513
	4 False & probably right	0.614					
	5 False & certainly right	0.062					
Q2: Lowest Spending	1 Correct & certainly right	0.038					
	2 Correct & probably right	0.202					
	3 Don't Know/Guess	0.340		3			1517
	4 False & probably right	0.370					
	5 False & certainly right	0.050					
Q3: Existence of Eligibility Rules	1 Correct & certainly right	0.281					
	2 Correct & probably right	0.441					
	3 Don't Know/Guess	0.174		2	1	5	1524
	4 False & probably right	0.086					
	5 False & certainly right	0.017					
Q4: Eligibility after finishing education	1 Correct & certainly right	0.106					
	2 Correct & probably right	0.192					
	3 Don't Know/Guess	0.188		4	1	5	1518
	4 False & probably right	0.320					
	5 False & certainly right	0.195					

Q5: Obligations	1 Correct & certainly right	0.095				
	2 Correct & probably right	0.204				
	3 Don't Know/Guess	0.235	3	1	5	1515
	4 False & probably right	0.335				
	5 False & certainly right	0.132				
Q6: Eligibility -Nationality	1 Correct & certainly right	0.228				
	2 Correct & probably right	0.283				
	3 Don't Know/Guess	0.240	2	1	5	1502
	4 False & probably right	0.199				
	5 False & certainly right	0.051				
Q7: Replacement rate - Children	1 Correct & certainly right	0.333				
	2 Correct & probably right	0.450				
	3 Don't Know/Guess	0.125	2	1	5	1498
	4 False & probably right	0.056				
	5 False & certainly right	0.036				
Q8: Replacement Rate - Maximum	1 Correct & certainly right	0.078				
	2 Correct & probably right	0.192				
	3 Don't Know/Guess	0.355	3	1	5	1505
	4 False & probably right	0.290				
	5 False & certainly right	0.086				
Q9: Benefit Duration	1 Correct & certainly right	0.116				
	2 Correct & probably right	0.269				
	3 Don't Know/Guess	0.382	3	1	5	1504
	4 False & probably right	0.176				
	5 False & certainly right	0.057				
Q10: Social Assistance	1 Correct & certainly right	0.259				
	2 Correct & probably right	0.304				
	3 Don't Know/Guess	0.163	2	1	5	541
	4 False & probably right	0.218				
	5 False & certainly right	0.057				

Belief items estimation tasks (Q11-Q13)								
Item	Confidence	Weighted Mean	Weighted Stand. Dev.	Weighted Median	Min	Max	Valid N ¹	
Q11: Unemployment rate overestimation (Reference value: 2)	All	21.564	19.994	18	-2	98	1527	
	Guess	19.536	17.148	14	-2	98	540	
	Probably right	22.420	20.152	18	-2	98	889	
	Certainly right	23.627	27.471	15	-1	98	90	
Q12: Benefit overuse overestimation (Reference value: 1)	All	23.237	21.442	19	-1	99	1527	
	Guess	20.875	19.479	16	-1	99	779	
	Probably right	25.309	21.773	19	-1	99	639	
	Certainly right	30.385	30.639	27	-1	99	80	
Q13: Poverty rate among the unemployed overestimation (Reference value: 29)	All	3.654	25.720	-4	-29	71	1527	
	Guess	3.207	24.234	-1	-29	71	651	
	Probably right	3.125	25.484	-6	-29	71	768	
	Certainly right	14.184	35.114	10	-29	71	87	
Controls (Categorical)								
Item	Response	Weighted Proportion					Valid N	
Gender	Female	0.467					1527	
	Male	0.509						
	Diverse	0.023						
Nationality EU	Yes	0.215					1527	
Nationality Swiss	Yes	0.771					1527	
Contact with unemployed	No	0.409						
	Yes	0.471					1474	
	Don't tell	0.120						
Highest Education	Obligatory school	0.063						
	Vocational school ²	0.227						
	Grammar School / teacher seminar ²	0.075						
	Higher Vocational training ²	0.235					1481	
	University ²	0.208						
	Other ²	0.046						
	Don't know ²	0.146						

Controls (Ordinal)							
Item	Response	Weighted Proportion		Weighted Median	Min	Max	Valid N
School type	0 Basic	0.320		1	0	1	1527
	1 Medium/ Higher	0.680					
Controls (Numerical)							
Item		Weighted Mean	Weighted Stand. Dev.	Weighted Median	Min	Max	Valid N
Age		14.614	0.813	15	13	18	1527
Future job prospects		3.927	0.947	4	1	5	1486
Political orientation (left-right scale)		4.752	2.682	5	0	10	1362
Egalitarian values		3.101	0.941	3	1	5	1486
Perceived socio-economic status of family		6.372	2.636	7	0	10	1514

Note: ¹ Total N for all differs from the sum of the three confidence levels due to cases where confidence is "NA": N= 8 for unemployment rate, N = 29 for benefit overuse, N = 21 for poverty rate.

Task II: Performance Standard and Potential Sources of Influential Misinformation

Item	Weighted Mean	Weighted Stand. Dev.	Weighted Median	Min	Max	Valid N
Misinformation score Q3	0.103	0.304	0	0	1	1524
Misinformation score Q5	0.467	0.499	0	0	1	1515
Misinformation score Q6	0.250	0.433	0	0	1	1502
Misinformation score Q7	0.092	0.289	0	0	1	1498
Misinformation score Q9	0.233	0.423	0	0	1	1504
Misinformation score Q11/c	0.287	0.334	0.143	0	1	1527
Misinformation score Q12/c	0.344	0.311	0.242	0	1	1527
Influential misinformation index	1.759	1.111	1.596	0	5.563	1461

Controls (Ordinal)

Item	Weighted Proportion	Weighted Median	Min	Max	Valid N
Talking political topics, parents	1 Never	0.306			
	2 Monthly	0.343			
	3 Weekly	0.261	2	1	4
	4 Daily	0.089			
Talking about political topics, friends	1 Never	0.412			
	2 Monthly	0.336			
	3 Weekly	0.197	2	1	4
	4 Daily	0.055			
Searching political information internet	1 Never	0.472			
	2 Monthly	0.288			
	3 Weekly	0.179	2	1	4
	4 Daily	0.061			
Talking about political topics school lessons	1 Never	0.244			
	2 Monthly	0.448			
	3 Weekly	0.257	2	1	4
	4 Daily	0.052			

Controls (Numerical)

Item	Weighted Mean	Weighted Stand. Dev.	Weighted Median	Min	Max	Valid N
Interest in politics	2.570	0.857	3	1	4	1456
Interest in social policy	2.400	0.800	2	1	4	1472

Note: See Task I for descriptions of political orientation (left-right), Swiss nationality, age, gender, school type, parents' highest education level, and contact with the unemployed.

VI.2.3 A3: Sample and Population

Gender	Sample	Population	Canton	Sample	Population	Grade	Sample	Population	Nationality	Sample	Population	School type	Sample	Population
Female	48.72%	47.45%	Argovia	8.97%	14.95%	8	50.69%	49.96%	Not Swiss	24.95%	22.86%	Basic	25.61%	31.19%
Male	48.78%	50.13%	Berne	17.03%	18.85%	9	49.31%	50.04%	Swiss	75.05%	77.15%	Medium/Higher	74.39%	68.81%
Diverse/Oth.	2.42%	2.42%	Lucerne	10.54%	8.74%									
			StGall	18.40%	10.51%									
			Zuriche	17.35%	30.40%									
			Nidwald	1.11%	0.83%									
			Appenzell OR	2.62%	1.05%									
			Zug	3.27%	2.55%									
			Fribourg	2.10%	1.84%									
			Uri	6.02%	0.73%									
			Glarus	3.21%	0.87%									
			Solothurn	2.36%	5.21%									
			Obwald	4.06%	0.84%									
			Grisons	2.95%	2.64%									

Note: Discrepancies to official statistics (BFS, 2023a) come from the facts that not all cantons in the German-speaking part of Switzerland. Moreover, student totals were adapted in the multi-language cantons in Bern, Grison, and Fribourg, as only German-speaking schools were part of the population. Moreover, to ensure the inclusion of individuals who do not identify with the gender categories (male and female) used in the official statistics, the study applied the methodology in Battaglia et al. (2009) to adjust population proportion benchmarks in raking weight calculation and analysis.

VI.2.4 A4: Criteria for Determining the Accuracy of Belief Statements

Qualitative Questions: Expenditures (Q1-Q2)

The correct answers to the qualitative questions Q1 and Q2 (Highest/lowest spending among the options Sickness, Disability, Old age (pensions), Family/kids, and unemployment) were obtained from the Federal Statistics Office (BFS, 2024c). The values for 2022 were used (in Millions, CHF):

Sickness	68,504
Disability	16,626
Old age	87,252
Families/kids	11,975
Unemployment	6,580

Source: Finanzen der Sozialen Sicherheit in der Schweiz: Sozialleistungen nach Funktion (BFS, 2024c)

The categories surviving dependents, housing, and social exclusion were excluded from the answer options as they do not correspond to specific target groups included in previous deservingness research.

Qualitative Questions: Institutional Rules (Q3-Q10)

Most of the answers to the items on the institutional rules (unemployment insurance) were obtained from the publication “Ein Leitfaden für Versicherte Arbeitslosigkeit” of the State Secretariat of Economic Affairs (WBF, 2024). The correct answers to the items Q3, Q4, Q5, Q7, Q8, Q9 are obtained from the following pages of the publication:

- Q3: Eligibility rules (pages 9-10)
- Q4: Eligibility after finishing education (p. 10)
- Q5: Only suitable work offers must be taken (p. 13)
- Q7: Replacement rate with children (p. 13-14)
- Q8: Maximum replacement rate (p. 13-14)
- Q9: Maximum benefit duration (p. 14)
- Q10: Unemployment insurance benefits are not social assistance (implicit)

The response to Q6 (eligibility for EU citizens living in Switzerland) was obtained from the following publication: Bundesamt für Sozialversicherungen & Staatssekretariat für Wirtschaft (2024).

Estimation Tasks: Outcomes Q11-Q13

The reference point to Q11 (unemployment rate) is based on the 2022 indicator of the State Secretariat of Economic Affairs (BFS, 2024b). The rounded result is 2% (2022: 2.2%). The

benefit overuse rate (Q12) is not publicly available as an indicator. The last publicly available correspondence on this matter is based on data from 2015, as a response of the Department of Economics, Education and Research to a request of a parliamentary member of the Swiss People's Party (WBF, 2018). The corresponding author obtained more recent data through mail correspondence with the State Secretariat of Economic Affairs (SECO), indicating the total of cases that improperly received benefits and required repayments (newest data 2020: 3260). Comparing this number with the absolute number of cases receiving unemployment benefits in 2020 (339 709), a ratio can be calculated to obtain the benefit overuse rate or the rate of improperly received benefits (~0.96%). The rounded result is 1%. The results for the poverty rate among the unemployed are obtained from the federal statistics office (BFS, 2024d). The newest data is from 2022 (28.9), rounded to 29% in the analysis. It is important to note that the rate is given for unemployed persons ('Erwerbslose'), not for registered unemployed ('Arbeitslose'), which might differ slightly in terms of poverty.

VI.2.5 A5 Weighted Regression Results Task I: Believe-Deservingness Associations

Model (i): Single Belief ~Deservingness

Model	(i) Single-belief (Q1) ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.325	0.157	0.000	***	1497
Q1	Linear	0.339	0.475	0.477		
Highest spending	Quadratic	-0.343	0.403	0.397		
	Cubic	0.138	0.236	0.561		
	Quartic	0.050	0.105	0.637		

Model	(i) Single-belief (Q2) ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.400	0.042	0.000	***	1501
Q2	Linear	-0.145	0.120	0.231		
Lowest spending	Quadratic	-0.129	0.106	0.229		
	Cubic	-0.106	0.085	0.211		
	Quartic	0.039	0.058	0.498		

Model	(i) Single-belief (Q3) ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.360	0.062	0.000	***	1509
Q3	Linear	-0.246	0.168	0.145		
Existence of eligibility rules	Quadratic	-0.130	0.161	0.420		
	Cubic	-0.077	0.101	0.451		
	Quartic	-0.142	0.081	0.083		

Model	(i) Single-belief (Q4) ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.422	0.035	0.000	***	1504
Q4	Linear	0.190	0.081	0.021	*	
Eligibility after education	Quadratic	-0.026	0.070	0.706		
	Cubic	-0.013	0.053	0.808		
	Quartic	-0.011	0.046	0.807		

Model	(i) Single-belief (Q5) ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.456	0.030	0.000	***	1501
Q5	Linear	-0.257	0.090	0.005	**	
Obligations	Quadratic	0.018	0.065	0.778		
	Cubic	0.068	0.056	0.224		
	Quartic	-0.123	0.056	0.031	*	

Model	(i) Single-belief (Q6) ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.396	0.039	0.000	***	1489
Q6	Linear	-0.320	0.120	0.009	**	
Eligibility - nationality	Quadratic	0.026	0.101	0.795		
	Cubic	-0.080	0.082	0.327		
	Quartic	-0.125	0.065	0.059		

Model	(i) Single-belief (Q7) ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.312	0.066	0.000	***	1486
Q7	Linear	-0.361	0.152	0.019	*	
Replacement rate - children	Quadratic	-0.022	0.098	0.825		
	Cubic	-0.043	0.090	0.634		
	Quartic	-0.180	0.089	0.045	*	

Model	(i) Single-belief (Q8) ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.466	0.032	0.000	***	1492
Q8	Linear	-0.054	0.093	0.567		
Replacement rate - maximum	Quadratic	0.088	0.065	0.179		
	Cubic	0.068	0.071	0.335		
	Quartic	-0.051	0.056	0.362		

Model	(i) Single-belief (Q9) ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.473	0.038	0.000	***	1491
Q9	Linear	0.098	0.087	0.264		
Benefit duration	Quadratic	0.133	0.083	0.110		
	Cubic	-0.007	0.057	0.897		
	Quartic	0.061	0.049	0.209		

Model	(i) Single-belief (Q10) ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.353	0.085	0.000	***	535
Q10	Linear	-0.408	0.212	0.061		
Social assistance	Quadratic	-0.197	0.206	0.344		
	Cubic	-0.071	0.147	0.633		
	Quartic	-0.044	0.079	0.582		

Model	(i) Single-belief (Q11) ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.507	0.064	0.000	***	1504
Q11 Unemployment rate estimation (UR)		-0.002	0.002	0.246		
Q11c	Linear	-0.005	0.132	0.967		
Confidence	Quadratic	0.144	0.082	0.082		
Q11*Q11c	Linear	-0.004	0.004	0.241		
Interaction UR Confidence	Quadratic	-0.003	0.002	0.215		

Model	(i) Single-belief (Q12) ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.657	0.061	0.000	***	1484
Q12 Benefit overuse estimation (BO)		-0.009	0.001	0.000	***	
Q12c	Linear	0.181	0.133	0.179		
Confidence	Quadratic	0.160	0.092	0.087		
Q12*Q12c	Linear	-0.010	0.003	0.002	**	
Interaction BO Confidence	Quadratic	-0.003	0.003	0.200		

Model	(i) Single-belief (Q13) ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.424	0.057	0.000	***	1491
Q13 Poverty rate estimation (PR)		0.001	0.002	0.738		
Q13c	Linear	-0.143	0.124	0.254		
Confidence	Quadratic	0.063	0.084	0.458		
Q13*Q13c	Linear	-0.001	0.002	0.737		
Interaction PR Confidence	Quadratic	-0.003	0.002	0.188		

Note: **** p < .001; *** p < 0.1; ** p < 0.5, ' p < 0.1 For the categorical items (Q1-Q10) and the confidence in beliefs (Q11c-Q13c), the values presented in the table refer to the results of the polynomial orthogonal contrasts.

Models (ii): Single Belief + Control ~ Deservingness

Model	(ii) Q1 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p	N	
Intercept	Intercept	3.507	0.725	0.000	***	1226
Q1	Linear	0.311	0.498	0.534		
Highest spending	Quadratic	-0.399	0.424	0.350		
	Cubic	0.194	0.244	0.428		
	Quartic	-0.001	0.110	0.994		
Age	Age	-0.033	0.046	0.483		
Gender	Male	-0.135	0.065	0.042	*	
	Diverse/other	0.044	0.179	0.807		
Nationality	Swiss	0.055	0.066	0.403		
	EU	-0.066	0.078	0.395		
Contact with unemployed	Yes	-0.011	0.077	0.883		
	Don't Tell	-0.114	0.125	0.364		
Political orientation	Left-right scale	-0.023	0.014	0.105		
Egalitarian values	Egalitarian values	0.102	0.033	0.003	**	
Highest education parents	Vocational school	0.051	0.129	0.694		
	Grammar school/ teacher seminar	-0.047	0.162	0.773		
	Higher vocational	0.005	0.124	0.968		
	University	0.073	0.142	0.607		
	Other	-0.219	0.165	0.188		
	Don't Know	-0.022	0.136	0.870		
Future job prospects		0.040	0.051	0.438		
Perceived socioeconomic status		-0.005	0.014	0.721		
School type	Medium/higher	0.015	0.053	0.784		

Model	(ii) Q2 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p	N	
Intercept	Intercept	3.585	0.707	0.000	***	1229
Q2	Linear	-0.110	0.131	0.401		
Lowest spending	Quadratic	-0.067	0.124	0.592		
	Cubic	-0.110	0.106	0.299		
	Quartic	0.047	0.065	0.470		
Age	Age	-0.030	0.046	0.524		
Gender	Male	-0.156	0.067	0.023	*	
	Diverse/other	0.034	0.180	0.849		
Nationality	Swiss	0.055	0.069	0.432		
	EU	-0.062	0.077	0.423		
Contact with unemployed	Yes	-0.014	0.076	0.851		
	Don't Tell	-0.110	0.127	0.389		
Political orientation	Left-right scale	-0.022	0.015	0.136		
Egalitarian values	Egalitarian values	0.100	0.033	0.003	**	
Highest education parents	Vocational school	0.061	0.129	0.638		
	Grammar school/ teacher seminar	-0.055	0.158	0.727		
	Higher vocational	0.012	0.127	0.925		
	University	0.070	0.146	0.635		
	Other	-0.193	0.164	0.244		
	Don't Know	-0.009	0.138	0.951		
Future job prospects		0.036	0.050	0.478		
Perceived socioeconomic status		-0.007	0.013	0.623		
School type	Medium/higher	0.016	0.053	0.764		

Model	(ii) Q3 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.467	0.704	0.000	***	1238
Q3	Linear	-0.383	0.142	0.008	**	
Existence of eligibility rules	Quadratic	-0.230	0.132	0.084	.	
	Cubic	-0.203	0.103	0.052	.	
	Quartic	-0.221	0.083	0.010	**	
Age	Age	-0.029	0.044	0.518		
Gender	Male	-0.158	0.064	0.015	*	
	Diverse/other	0.025	0.197	0.900		
Nationality	Swiss	0.075	0.066	0.264		
	EU	-0.060	0.079	0.451		
Contact with unemployed	Yes	-0.014	0.076	0.855		
	Don't Tell	-0.102	0.123	0.406		
Political orientation	Left-right scale	-0.022	0.014	0.111		
Egalitarian values	Egalitarian values	0.104	0.032	0.002	**	
Highest education parents	Vocational school	0.057	0.126	0.653		
	Grammar school/ teacher seminar	-0.002	0.156	0.987		
	Higher vocational	0.012	0.125	0.926		
	University	0.070	0.148	0.636		
	Other	-0.141	0.158	0.373		
	Don't Know	0.010	0.131	0.938		
Future job prospects		0.031	0.050	0.535		
Perceived socioeconomic status		-0.007	0.013	0.585		
School type	Medium/higher	0.014	0.055	0.801		

Model	(ii) Q4 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.649	0.742	0.000	***	1233
Q4	Linear	0.142	0.085	0.099	.	
Eligibility after education	Quadratic	-0.009	0.093	0.919		
	Cubic	0.017	0.065	0.790		
	Quartic	-0.015	0.056	0.788		
Age	Age	-0.034	0.048	0.484		
Gender	Male	-0.147	0.065	0.027	*	
	Diverse/other	0.045	0.182	0.805		
Nationality	Swiss	0.063	0.066	0.340		
	EU	-0.053	0.083	0.521		
Contact with unemployed	Yes	-0.010	0.076	0.897		
	Don't Tell	-0.116	0.123	0.350		
Political orientation	Left-right scale	-0.020	0.014	0.168		
Egalitarian values	Egalitarian values	0.100	0.033	0.004	**	
Highest education parents	Vocational school	0.060	0.129	0.642		
	Grammar school/ teacher seminar	-0.040	0.160	0.806		
	Higher vocational	0.016	0.130	0.901		
	University	0.064	0.145	0.659		
	Other	-0.181	0.160	0.262		
	Don't Know	-0.007	0.137	0.960		
Future job prospects		0.031	0.052	0.550		
Perceived socioeconomic status		-0.007	0.014	0.623		
School type	Medium/higher	0.013	0.054	0.809		

Model	(ii) Q5 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.474	0.695	0.000	***	1232
Q5	Linear	-0.256	0.106	0.018	*	
Obligations	Quadratic	0.017	0.078	0.833		
	Cubic	0.059	0.068	0.388		
	Quartic	-0.113	0.056	0.048	*	
Age	Age	-0.022	0.045	0.624		
Gender	Male	-0.162	0.062	0.011	*	
	Diverse/other	0.061	0.181	0.739		
Nationality	Swiss	0.055	0.067	0.415		
	EU	-0.063	0.075	0.405		
Contact with unemployed	Yes	-0.018	0.076	0.809		
	Don't Tell	-0.108	0.125	0.389		
Political orientation	Left-right scale	-0.020	0.014	0.167		
Egalitarian values	Egalitarian values	0.102	0.032	0.002	**	
Highest education parents	Vocational school	0.076	0.137	0.584		
	Grammar school/ teacher seminar	-0.022	0.165	0.894		
	Higher vocational	0.016	0.134	0.906		
	University	0.097	0.153	0.529		
	Other	-0.209	0.164	0.206		
	Don't Know	-0.004	0.145	0.976		
Future job prospects		0.034	0.049	0.495		
Perceived socioeconomic status		-0.003	0.013	0.794		
School type	Medium/higher	0.025	0.053	0.635		

Model	(ii) Q6 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.365	0.694	0.000	***	1221
Q6	Linear	-0.265	0.116	0.025	*	
Eligibility - nationality	Quadratic	0.057	0.101	0.573		
	Cubic	-0.070	0.070	0.318		
	Quartic	-0.072	0.068	0.295		
Age	Age	-0.015	0.044	0.743		
Gender	Male	-0.148	0.066	0.026	*	
	Diverse/other	0.029	0.192	0.882		
Nationality	Swiss	0.080	0.065	0.220		
	EU	-0.065	0.073	0.374		
Contact with unemployed	Yes	-0.047	0.081	0.561		
	Don't Tell	-0.071	0.113	0.532		
Political orientation	Left-right scale	-0.022	0.015	0.145		
Egalitarian values	Egalitarian values	0.107	0.031	0.001	***	
Highest education parents	Vocational school	0.035	0.131	0.789		
	Grammar school/ teacher seminar	-0.070	0.159	0.661		
	Higher vocational	-0.021	0.129	0.870		
	University	0.059	0.158	0.709		
	Other	-0.257	0.163	0.119		
	Don't Know	-0.026	0.139	0.854		
Future job prospects		0.031	0.048	0.522		
Perceived socioeconomic status		-0.007	0.014	0.632		
School type	Medium/higher	0.016	0.055	0.777		

Model	(ii) Q7 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.545	0.648	0.000	***	1221
Q7	Linear	-0.280	0.158	0.080	.	
Replacement rate - children	Quadratic	0.010	0.133	0.937		
	Cubic	-0.092	0.111	0.413		
	Quartic	-0.222	0.118	0.063	.	
Age	Age	-0.030	0.042	0.473		
Gender	Male	-0.147	0.065	0.027	*	
	Diverse/other	-0.002	0.193	0.992		
Nationality	Swiss	0.046	0.063	0.469		
	EU	-0.065	0.076	0.392		
Contact with unemployed	Yes	-0.030	0.078	0.699		
	Don't Tell	-0.043	0.114	0.707		
Political orientation	Left-right scale	-0.021	0.015	0.168		
Egalitarian values	Egalitarian values	0.096	0.034	0.006	**	
Highest education parents	Vocational school	0.107	0.139	0.444		
	Grammar school/ teacher seminar	0.034	0.174	0.845		
	Higher vocational	0.059	0.133	0.659		
	University	0.135	0.159	0.400		
	Other	-0.139	0.162	0.394		
	Don't Know	0.034	0.137	0.807		
Future job prospects		0.027	0.048	0.578		
Perceived socioeconomic status		-0.011	0.014	0.441		
School type	Medium/higher	0.003	0.051	0.950		

Model	(ii) Q8 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.511	0.723	0.000	***	1224
Q8	Linear	-0.021	0.103	0.841		
Replacement rate - maximum	Quadratic	0.204	0.080	0.013	*	
	Cubic	0.055	0.076	0.472		
	Quartic	-0.026	0.062	0.670		
Age	Age	-0.022	0.047	0.634		
Gender	Male	-0.176	0.063	0.007	**	
	Diverse/other	0.063	0.182	0.730		
Nationality	Swiss	0.081	0.066	0.224		
	EU	-0.070	0.078	0.373		
Contact with unemployed	Yes	-0.026	0.077	0.738		
	Don't Tell	-0.109	0.126	0.387		
Political orientation	Left-right scale	-0.024	0.015	0.108		
Egalitarian values	Egalitarian values	0.104	0.032	0.002	**	
Highest education parents	Vocational school	0.090	0.127	0.482		
	Grammar school/ teacher seminar	-0.021	0.158	0.896		
	Higher vocational	0.031	0.123	0.800		
	University	0.098	0.142	0.490		
	Other	-0.172	0.159	0.285		
	Don't Know	0.028	0.136	0.837		
Future job prospects		0.036	0.050	0.481		
Perceived socioeconomic status		-0.006	0.014	0.652		
School type	Medium/higher	0.029	0.054	0.589		

Model	(ii) Q9 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p	N	
Intercept	Intercept	3.422	0.710	0.000	***	1223
Q9	Linear	0.197	0.075	0.010	*	
Benefit duration	Quadratic	0.246	0.082	0.004	**	
	Cubic	0.062	0.068	0.363		
	Quartic	0.148	0.057	0.011	*	
Age	Age	-0.017	0.046	0.715		
Gender	Male	-0.159	0.067	0.019	*	
	Diverse/other	0.049	0.184	0.790		
Nationality	Swiss	0.081	0.069	0.245		
	EU	-0.082	0.073	0.260		
Contact with unemployed	Yes	-0.005	0.073	0.951		
	Don't Tell	-0.086	0.115	0.455		
Political orientation	Left-right scale	-0.025	0.015	0.098	.	
Egalitarian values	Egalitarian values	0.101	0.032	0.002	**	
Highest education parents	Vocational school	0.053	0.135	0.693		
	Grammar school/ teacher seminar	-0.062	0.167	0.713		
	Higher vocational	0.003	0.132	0.982		
	University	0.090	0.155	0.566		
	Other	-0.179	0.162	0.271		
	Don't Know	0.003	0.144	0.982		
Future job prospects		0.047	0.047	0.316		
Perceived socioeconomic status		-0.007	0.014	0.644		
School type	Medium/higher	0.026	0.056	0.635		

Model	(ii) Q10 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p	N	
Intercept	Intercept	1.762	1.156	0.141		444
Q10	Linear	-0.085	0.180	0.640		
Social assistance	Quadratic	0.035	0.254	0.890		
	Cubic	0.081	0.141	0.568		
	Quartic	0.053	0.089	0.557		
Age	Age	0.086	0.072	0.243		
Gender	Male	-0.190	0.112	0.102		
	Diverse/other	-0.413	0.279	0.152		
Nationality	Swiss	-0.058	0.106	0.591		
	EU	0.149	0.100	0.148		
Contact with unemployed	Yes	0.055	0.125	0.663		
	Don't Tell	0.298	0.156	0.069	.	
Political orientation	Left-right scale	0.001	0.025	0.983		
Egalitarian values	Egalitarian values	0.105	0.048	0.039	*	
Highest education parents	Vocational school	-0.074	0.217	0.736		
	Grammar school/ teacher seminar	-0.259	0.208	0.226		
	Higher vocational	-0.397	0.274	0.161		
	University	-0.226	0.238	0.352		
	Other	-0.415	0.277	0.148		
	Don't Know	-0.380	0.292	0.206		
Future job prospects		0.114	0.058	0.062	.	
Perceived socioeconomic status		-0.015	0.030	0.621		
School type	Medium/higher	0.086	0.165	0.606		

Model	(ii) Q11 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.820	0.739	0.000	***	1231
Q11 Unemployment rate estimation (UR)		-0.003	0.002	0.158		
Q11c	Linear	0.157	0.131	0.235		
Confidence	Quadratic	0.190	0.088	0.034	*	
Q11*Q11c	Linear	-0.008	0.004	0.028	*	
Interaction UR Confidence	Quadratic	-0.002	0.002	0.431		
Age	Age	-0.040	0.047	0.397		
Gender	Male	-0.160	0.069	0.023	*	
	Diverse/other	0.047	0.193	0.808		
Nationality	Swiss	0.039	0.069	0.576		
	EU	-0.064	0.073	0.384		
Contact with unemployed	Yes	-0.018	0.080	0.825		
	Don't Tell	-0.128	0.132	0.333		
Political orientation	Left-right scale	-0.020	0.015	0.183		
Egalitarian values	Egalitarian values	0.106	0.033	0.002	**	
Highest education parents	Vocational school	0.060	0.120	0.617		
	Grammar school/ teacher seminar	-0.047	0.158	0.766		
	Higher vocational	0.044	0.121	0.715		
	University	0.080	0.138	0.566		
	Other	-0.160	0.166	0.339		
	Don't Know	0.021	0.131	0.871		
Future job prospects		0.049	0.049	0.320		
Perceived socioeconomic status		-0.007	0.014	0.587		
School type	Medium/higher	-0.013	0.056	0.822		

Model	(ii) Q12 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	4.119	0.742	0.000	***	1216
Q12 Benefit overuse estimation (BO)		-0.009	0.002	0.000	***	
Q12c	Linear	0.197	0.142	0.170		
Confidence	Quadratic	0.172	0.108	0.116		
Q12:Q12c	Linear	-0.010	0.003	0.001	**	
Interaction BO Confidence	Quadratic	-0.003	0.003	0.309		
Age	Age	-0.048	0.046	0.309		
Gender	Male	-0.134	0.067	0.049	*	
	Diverse/other	-0.010	0.174	0.956		
Nationality	Swiss	0.027	0.067	0.691		
	EU	-0.056	0.071	0.431		
Contact with unemployed	Yes	-0.023	0.072	0.752		
	Don't Tell	-0.088	0.124	0.484		
Political orientation	Left-right scale	-0.017	0.013	0.201		
Egalitarian values	Egalitarian values	0.090	0.031	0.005	**	
Highest education parents	Vocational school	0.023	0.128	0.857		
	Grammar school/ teacher seminar	-0.069	0.164	0.676		
	Higher vocational	-0.020	0.130	0.880		
	University	0.052	0.145	0.719		
	Other	-0.203	0.158	0.201		
	Don't Know	-0.041	0.140	0.773		
Future job prospects		0.054	0.048	0.263		
Perceived socioeconomic status		-0.012	0.014	0.394		
School type	Medium/higher	0.023	0.055	0.680		

Model	(ii) Q13 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.827	0.707	0.000	***	1223
Q13 Poverty rate estimation (PR)		-0.001	0.002	0.708		
Q13c	Linear	-0.044	0.132	0.742		
Confidence	Quadratic	0.125	0.087	0.158		
Q13*Q13c	Linear	-0.002	0.003	0.516		
Interaction PR Confidence	Quadratic	-0.005	0.002	0.035	*	
Age	Age	-0.047	0.045	0.308		
Gender	Male	-0.144	0.067	0.035	*	
	Diverse/other	0.065	0.190	0.732		
Nationality	Swiss	0.025	0.064	0.696		
	EU	-0.077	0.083	0.356		
Contact with unemployed	Yes	-0.015	0.078	0.845		
	Don't Tell	-0.088	0.128	0.493		
Political orientation	Left-right scale	-0.018	0.014	0.187		
Egalitarian values	Egalitarian values	0.098	0.034	0.005	**	
Highest education parents	Vocational school	0.091	0.120	0.449		
	Grammar school/ teacher seminar	-0.034	0.160	0.830		
	Higher vocational	0.056	0.125	0.653		
	University	0.126	0.142	0.376		
	Other	-0.176	0.164	0.286		
	Don't Know	0.026	0.134	0.847		
Future job prospects		0.041	0.050	0.416		
Perceived socioeconomic status		-0.005	0.013	0.722		
School type	Medium/higher	0.008	0.054	0.877		

Note: **** p < .001; *** p < 0.1; ** p < 0.5, * p < 0.1 For the categorical items (Q1-Q10) and the confidence in beliefs (Q11c-Q13c), the values presented in the table refer to the results of the polynomial orthogonal contrasts. Reference category for highest education parents (Obligatory school); for contact with unemployed (no); for gender (female); for school type (basic).

Model (iii): All Beliefs ~ Deservingness

Model	(iii) All beliefs ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.473	0.195	0.000	***	1422
Q1	Linear	0.152	0.480	0.753		
Highest spending	Quadratic	-0.092	0.430	0.832		
	Cubic	-0.020	0.243	0.933		
	Quartic	0.050	0.109	0.651		
Q2	Linear	-0.113	0.128	0.379		
Lowest spending	Quadratic	0.044	0.133	0.745		
	Cubic	-0.042	0.070	0.550		
	Quartic	-0.061	0.071	0.394		
Q3	Linear	-0.138	0.141	0.334		
Existence of eligibility rules	Quadratic	-0.094	0.145	0.520		
	Cubic	-0.082	0.093	0.380		
	Quartic	-0.058	0.085	0.498		
Q4	Linear	0.157	0.074	0.038	*	
Eligibility after education	Quadratic	-0.098	0.077	0.210		
	Cubic	0.031	0.050	0.545		
	Quartic	-0.035	0.054	0.520		
Q5	Linear	-0.216	0.082	0.011	*	
Obligations	Quadratic	-0.041	0.066	0.533		
	Cubic	0.071	0.058	0.220		
	Quartic	-0.079	0.049	0.116		
Q6	Linear	-0.279	0.107	0.012	*	
Eligibility - nationality	Quadratic	0.016	0.092	0.859		
	Cubic	-0.086	0.072	0.239		
	Quartic	-0.060	0.059	0.313		
Q7	Linear	-0.381	0.159	0.021	*	
Replacement rate - children	Quadratic	-0.066	0.112	0.559		
	Cubic	-0.068	0.089	0.445		
	Quartic	-0.114	0.095	0.234		
Q8	Linear	0.050	0.100	0.617		
Replacement rate - maximum	Quadratic	0.096	0.071	0.181		
	Cubic	0.081	0.065	0.216		
	Quartic	-0.032	0.056	0.572		
Q9	Linear	0.099	0.095	0.304		
Benefit duration	Quadratic	0.119	0.088	0.184		
	Cubic	-0.028	0.056	0.617		
	Quartic	0.098	0.049	0.049	*	
Q11 Unempl. rate estimation (UR)		-0.001	0.002	0.538		
Q11c	Linear	0.177	0.134	0.193		
Confidence	Quadratic	0.176	0.079	0.030	*	
Q11*Q11c	Linear	-0.007	0.004	0.066	.	
Interaction UR Confidence	Quadratic	-0.004	0.003	0.144		
Q12 Benefit overuse estimation (BO)		-0.009	0.002	0.000	***	
Q12c	Linear	0.150	0.110	0.180		
Confidence	Quadratic	0.058	0.077	0.457		
Q12*Q12c	Linear	-0.007	0.003	0.040	*	
Interaction BO Confidence	Quadratic	-0.003	0.003	0.319		
Q13 Poverty rate estimation (PR)		0.003	0.002	0.182		
Q13c	Linear	-0.139	0.110	0.212		
Confidence	Quadratic	0.052	0.080	0.519		
Q13*Q13c	Linear	0.002	0.003	0.454		
Interaction PR Confidence	Quadratic	-0.002	0.002	0.421		

Note: **** p < .001; *** p < 0.1; ** p < 0.5; ' p < 0.1 For the categorical items (Q1-Q10) and the confidence in beliefs (Q11c-Q13c), the values presented in the table refer to the results of the polynomial orthogonal contrasts. Reference category for highest education parents (Obligatory school); for contact with unemployed (no); for gender (female); for school type (basic). Q10 is not used in models (iii) and (iv) since it was only asked in the second round and hence would unduly reduce the sample size for the test.

Model (iv): All Beliefs + Control ~ Deservingness

Model	(iv) All beliefs + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.932	0.732	0.000	***	1171
Q1	Linear	0.088	0.503	0.862		
Highest spending	Quadratic	-0.236	0.452	0.605		
	Cubic	0.009	0.251	0.973		
	Quartic	-0.020	0.113	0.861		
Q2	Linear	0.017	0.141	0.903		
Lowest spending	Quadratic	0.045	0.136	0.742		
	Cubic	0.019	0.077	0.804		
	Quartic	-0.067	0.069	0.342		
Q3	Linear	-0.290	0.114	0.016	*	
Existence of eligibility rules	Quadratic	-0.203	0.112	0.079	.	
	Cubic	-0.183	0.089	0.048	*	
	Quartic	-0.116	0.079	0.153		
Q4	Linear	0.107	0.072	0.144		
Eligibility after education	Quadratic	-0.111	0.089	0.219		
	Cubic	0.054	0.062	0.394		
	Quartic	-0.022	0.062	0.727		
Q5	Linear	-0.206	0.085	0.020	*	
Obligations	Quadratic	-0.075	0.070	0.291		
	Cubic	0.085	0.064	0.195		
	Quartic	-0.075	0.054	0.172		
Q6	Linear	-0.241	0.105	0.028	*	
Eligibility - nationality	Quadratic	0.015	0.087	0.865		
	Cubic	-0.062	0.064	0.338		
	Quartic	0.010	0.062	0.869		
Q7	Linear	-0.338	0.163	0.046	*	
Replacement rate - children	Quadratic	-0.030	0.133	0.821		
	Cubic	-0.115	0.108	0.294		
	Quartic	-0.189	0.117	0.117		
Q8	Linear	0.025	0.112	0.823		
Replacement rate - maximum	Quadratic	0.168	0.072	0.026	*	
	Cubic	0.043	0.067	0.520		
	Quartic	-0.037	0.059	0.532		
Q9	Linear	0.190	0.085	0.032	*	
Benefit duration	Quadratic	0.215	0.084	0.016	*	
	Cubic	0.051	0.066	0.445		
	Quartic	0.169	0.057	0.006	**	
Q11 Unempl. rate estimation (UR)		-0.001	0.002	0.528		
Q11c	Linear	0.218	0.137	0.120		
Confidence	Quadratic	0.161	0.087	0.072	.	
Q11*Q11c	Linear	-0.008	0.004	0.036	*	
Interaction UR Confidence	Quadratic	-0.002	0.003	0.516		
Q12 Benefit overuse estimation (BO)		-0.009	0.002	0.000	***	
Q12c	Linear	0.159	0.120	0.192		
Confidence	Quadratic	0.068	0.089	0.453		
Q12*Q12c	Linear	-0.009	0.003	0.004	**	
Interaction BO Confidence	Quadratic	-0.003	0.003	0.298		
Q13 Poverty rate estimation (PR)		0.001	0.002	0.500		
Q13c	Linear	-0.019	0.106	0.862		
Confidence	Quadratic	0.127	0.088	0.159		
Q13*Q13c	Linear	0.001	0.003	0.674		
Interaction PR Confidence	Quadratic	-0.004	0.002	0.048	*	
Age	Age	-0.040	0.044	0.374		

Gender	Male	-0.088	0.069	0.211	
	Diverse/other	0.019	0.218	0.931	
Nationality	Swiss	0.003	0.065	0.959	
	EU	-0.105	0.065	0.115	
Contact with unemployed	Yes	-0.008	0.076	0.920	
	Don't Tell	0.043	0.106	0.688	
Political orientation	Left-right scale	-0.017	0.014	0.221	
Egalitarian values	Egalitarian values	0.076	0.030	0.017	*
Highest education parents	Vocational school	0.087	0.125	0.491	
	Grammar school/ teacher seminar	-0.026	0.152	0.865	
	Higher vocational	0.060	0.139	0.668	
	University	0.139	0.148	0.356	
	Other	-0.177	0.146	0.235	
	Don't Know	0.013	0.143	0.926	
Future job prospects		0.034	0.041	0.420	
Perceived socioeconomic status		-0.015	0.013	0.237	
School type	Medium/higher	-0.017	0.055	0.751	

Note: **** p < .001; *** p < 0.01; ** p < 0.05; * p < 0.1 For the categorical items (Q1-Q10) and the confidence in beliefs (Q11c-Q13c), the values presented in the table refer to the results of the polynomial orthogonal contrasts. Reference category for highest education parents (Obligatory school); for contact with unemployed (no); for gender (female); for school type (basic). Q10 is not used in models (iii) and (iv) since it was only asked in the second round and hence would unduly reduce the sample size for the test.

VI.2.6 A6 Unweighted Regression Results Task I: Belief-Deservingness Associations

Model (i): Single Belief ~Deservingness

Model	(i) Single-belief (Q1) ~ deservingness					
Item	Description/Answer	Est	StdErr	p	N	
Intercept	Intercept	3.381	0.114	0.000	***	1497
Q1 Highest spending	Linear	0.161	0.356	0.651		
	Quadratic	-0.233	0.302	0.440		
	Cubic	0.045	0.184	0.807		
	Quartic	0.018	0.082	0.823		

Model	(i) Single-belief (Q2) ~ deservingness					
Item	Description/Answer	Est	StdErr	p	N	
Intercept	Intercept	3.393	0.041	0.000	***	1501
Q2 Lowest spending	Linear	-0.107	0.121	0.378		
	Quadratic	-0.215	0.104	0.040	*	
	Cubic	-0.095	0.073	0.190		
	Quartic	0.008	0.046	0.859		

Model	(i) Single-belief (Q3) ~ deservingness					
Item	Description/Answer	Est	StdErr	p	N	
Intercept	Intercept	3.384	0.043	0.000	***	1509
Q3 Existence of eligibility rules	Linear	-0.222	0.124	0.072	.	
	Quadratic	-0.062	0.109	0.572		
	Cubic	0.004	0.079	0.961		
	Quartic	-0.095	0.063	0.134		

Model	(i) Single-belief (Q4) ~ deservingness					
Item	Description/Answer	Est	StdErr	p	N	
Intercept	Intercept	3.436	0.025	0.000	***	1504
Q4 Eligibility after education	Linear	0.189	0.061	0.002	**	
	Quadratic	-0.005	0.060	0.927		
	Cubic	-0.052	0.049	0.292		
	Quartic	-0.048	0.051	0.350		

Model	(i) Single-belief (Q5) ~ deservingness					
Item	Description/Answer	Est	StdErr	p	N	
Intercept	Intercept	3.471	0.026	0.000	***	1501
Q5 Obligations	Linear	-0.211	0.069	0.002	**	
	Quadratic	0.004	0.063	0.951		
	Cubic	-0.014	0.050	0.781		
	Quartic	-0.123	0.044	0.005	**	

Model	(i) Single-belief (Q6) ~ deservingness					
Item	Description/Answer	Est	StdErr	p	N	
Intercept	Intercept	3.414	0.030	0.000	***	1489
Q6 Eligibility - nationality	Linear	-0.347	0.083	0.000	***	
	Quadratic	-0.013	0.074	0.865		
	Cubic	-0.072	0.057	0.208		
	Quartic	-0.136	0.047	0.004	**	

Model	(i) Single-belief (Q7) ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.367	0.045	0.000	***	1486
Q7	Linear	-0.244	0.117	0.036	*	
Replacement rate - children	Quadratic	0.034	0.107	0.749		
	Cubic	-0.003	0.092	0.971		
	Quartic	-0.132	0.080	0.101		

Model	(i) Single-belief (Q8) ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.461	0.029	0.000	***	1492
Q8	Linear	-0.036	0.080	0.655		
Replacement rate - maximum	Quadratic	-0.025	0.070	0.718		
	Cubic	0.005	0.056	0.924		
	Quartic	-0.067	0.043	0.124		

Model	(i) Single-belief (Q9) ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.482	0.029	0.000	***	1491
Q9	Linear	0.147	0.082	0.071	.	
Benefit duration	Quadratic	0.060	0.071	0.397		
	Cubic	0.036	0.059	0.544		
	Quartic	0.038	0.044	0.393		

Model	(i) Single-belief (Q10) ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.398	0.048	0.000	***	535
Q10	Linear	-0.366	0.129	0.005	**	
Social assistance	Quadratic	-0.031	0.120	0.800		
	Cubic	-0.037	0.090	0.684		
	Quartic	-0.003	0.087	0.971		

Model	(i) Single-belief (Q11) ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.467	0.052	0.000	***	1504
Q11 Unemployment rate estimation (UR)		-0.002	0.002	0.222		
Q11c	Linear	-0.120	0.106	0.258		
Confidence	Quadratic	0.034	0.071	0.631		
Q11*Q11c	Linear	-0.003	0.003	0.426		
Interaction UR Confidence	Quadratic	-0.002	0.002	0.372		

Model	(i) Single-belief (Q12) ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.630	0.058	0.000	***	1484
Q12 Benefit overuse estimation (BO)		-0.008	0.001	0.000	***	
Q12c	Linear	0.104	0.117	0.376		
Confidence	Quadratic	0.052	0.080	0.516		
Q12*Q12c	Linear	-0.009	0.003	0.001	***	
Interaction BO Confidence	Quadratic	-0.002	0.002	0.249		

Model	(i) Single-belief (Q13) ~ deservingness					
Item	Description/Answer	Est	StdErr	p	N	
Intercept	Intercept	3.400	0.043	0.000	***	1491
Q13 Poverty rate estimation (PR)		0.002	0.001	0.198		
Q13c	Linear	-0.205	0.089	0.022	*	
Confidence	Quadratic	-0.025	0.058	0.660		
Q13*Q13c	Linear	0.001	0.002	0.728		
Interaction PR Confidence	Quadratic	-0.002	0.002	0.400		

Note: **** p < .001; *** p < 0.1; ** p < 0.5, ' p < 0.1 For the categorical items (Q1-Q10) and the confidence in beliefs (Q11c-Q13c), the values presented in the table refer to the results of the polynomial orthogonal contrasts.

Models (ii): Single Belief + Control ~ Deservingness

Model	(ii) Q1 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p	N	
Intercept	Intercept	3.132	0.530	0.000	***	1226
Q1 Highest spending	Linear	0.160	0.390	0.682		
	Quadratic	-0.315	0.331	0.341		
	Cubic	0.078	0.200	0.696		
	Quartic	-0.006	0.090	0.947		
Age	Age	-0.018	0.031	0.558		
Gender	Male	-0.110	0.051	0.029	*	
	Diverse/other	0.071	0.182	0.695		
Nationality	Swiss	0.011	0.065	0.869		
	EU	-0.045	0.063	0.480		
Contact with unemployed	Yes	0.008	0.053	0.874		
	Don't Tell	-0.102	0.099	0.304		
Political orientation	Left-right scale	-0.027	0.011	0.015	*	
Egalitarian values		0.124	0.028	0.000	***	
Highest education parents	Vocational school	0.150	0.118	0.206		
	Grammar school/ teacher seminar	0.078	0.136	0.566		
	Higher vocational	0.067	0.119	0.576		
	University	0.172	0.120	0.151		
	Other	-0.020	0.163	0.904		
	Don't Know	0.111	0.125	0.373		
Future job prospects		0.040	0.029	0.168		
Perceived socioeconomic status		0.005	0.014	0.724		
School type	Medium/higher	-0.002	0.044	0.971		

Model	(ii) Q2 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p	N	
Intercept	Intercept	3.209	0.518	0.000	***	1229
Q2 Lowest spending	Linear	-0.109	0.128	0.392		
	Quadratic	-0.148	0.108	0.171		
	Cubic	-0.123	0.078	0.114		
	Quartic	0.030	0.050	0.559		
Age	Age	-0.019	0.031	0.533		
Gender	Male	-0.123	0.050	0.015	*	
	Diverse/other	0.070	0.182	0.700		
Nationality	Swiss	0.009	0.065	0.888		
	EU	-0.034	0.063	0.590		
Contact with unemployed	Yes	0.006	0.053	0.904		
	Don't Tell	-0.086	0.099	0.381		
Political orientation	Left-right scale	-0.027	0.011	0.015	*	
Egalitarian values		0.124	0.028	0.000	***	
Highest education parents	Vocational school	0.142	0.118	0.230		
	Grammar school/ teacher seminar	0.046	0.136	0.738		
	Higher vocational	0.062	0.119	0.604		
	University	0.159	0.120	0.185		
	Other	-0.010	0.161	0.952		
	Don't Know	0.101	0.126	0.422		
Future job prospects		0.038	0.029	0.181		
Perceived socioeconomic status		0.006	0.014	0.677		
School type	Medium/higher	-0.005	0.044	0.916		

Model	(ii) Q3 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.163	0.523	0.000	***	1238
Q3	Linear	-0.272	0.140	0.053	.	
Existence of eligibility rules	Quadratic	-0.119	0.126	0.343		
	Cubic	-0.080	0.088	0.367		
	Quartic	-0.125	0.072	0.084	.	
Age	Age	-0.018	0.031	0.560		
Gender	Male	-0.135	0.050	0.007	**	
	Diverse/other	0.070	0.187	0.709		
Nationality	Swiss	0.013	0.064	0.846		
	EU	-0.037	0.063	0.553		
Contact with unemployed	Yes	0.007	0.052	0.900		
	Don't Tell	-0.072	0.098	0.463		
Political orientation	Left-right scale	-0.027	0.011	0.014	*	
Egalitarian values		0.124	0.028	0.000	***	
Highest education parents	Vocational school	0.149	0.119	0.212		
	Grammar school/ teacher seminar	0.075	0.137	0.582		
	Higher vocational	0.071	0.120	0.556		
	University	0.164	0.121	0.178		
	Other	0.017	0.160	0.917		
	Don't Know	0.124	0.126	0.327		
Future job prospects		0.034	0.028	0.224		
Perceived socioeconomic status		0.005	0.014	0.725		
School type	Medium/higher	-0.005	0.045	0.904		

Model	(ii) Q4 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.263	0.523	0.000	***	1233
Q4	Linear	0.119	0.069	0.084	.	
Eligibility after education	Quadratic	-0.013	0.067	0.846		
	Cubic	-0.029	0.054	0.594		
	Quartic	-0.041	0.058	0.480		
Age	Age	-0.020	0.031	0.517		
Gender	Male	-0.120	0.050	0.017	*	
	Diverse/other	0.088	0.185	0.634		
Nationality	Swiss	0.009	0.065	0.895		
	EU	-0.034	0.063	0.589		
Contact with unemployed	Yes	0.012	0.053	0.820		
	Don't Tell	-0.089	0.100	0.371		
Political orientation	Left-right scale	-0.026	0.011	0.018	*	
Egalitarian values		0.123	0.028	0.000	***	
Highest education parents	Vocational school	0.149	0.118	0.205		
	Grammar school/ teacher seminar	0.059	0.136	0.662		
	Higher vocational	0.067	0.119	0.573		
	University	0.157	0.120	0.191		
	Other	0.010	0.162	0.952		
	Don't Know	0.115	0.125	0.358		
Future job prospects		0.034	0.029	0.242		
Perceived socioeconomic status		0.006	0.014	0.689		
School type	Medium/higher	-0.007	0.045	0.867		

Model	(ii) Q5 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.172	0.513	0.000	***	1232
Q5	Linear	-0.195	0.076	0.010	*	
Obligations	Quadratic	-0.005	0.070	0.944		
	Cubic	-0.006	0.056	0.909		
	Quartic	-0.090	0.050	0.072	.	
Age	Age	-0.014	0.031	0.641		
Gender	Male	-0.135	0.050	0.007	**	
	Diverse/other	0.083	0.182	0.649		
Nationality	Swiss	0.009	0.065	0.895		
	EU	-0.035	0.063	0.579		
Contact with unemployed	Yes	0.000	0.053	0.994		
	Don't Tell	-0.087	0.098	0.376		
Political orientation	Left-right scale	-0.026	0.011	0.018	*	
Egalitarian values		0.125	0.028	0.000	***	
Highest education parents	Vocational school	0.158	0.119	0.185		
	Grammar school/ teacher seminar	0.077	0.139	0.579		
	Higher vocational	0.063	0.120	0.599		
	University	0.177	0.121	0.145		
	Other	-0.003	0.163	0.984		
	Don't Know	0.113	0.128	0.377		
Future job prospects		0.039	0.028	0.170		
Perceived socioeconomic status		0.007	0.014	0.613		
School type	Medium/higher	0.005	0.044	0.916		

Model	(ii) Q6 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.171	0.515	0.000	***	1221
Q6	Linear	-0.324	0.092	0.000	***	
Eligibility - nationality	Quadratic	-0.021	0.083	0.804		
	Cubic	-0.090	0.063	0.154		
	Quartic	-0.094	0.053	0.078	.	
Age	Age	-0.013	0.031	0.681		
Gender	Male	-0.119	0.050	0.017	*	
	Diverse/other	0.099	0.186	0.596		
Nationality	Swiss	0.030	0.063	0.633		
	EU	-0.037	0.062	0.555		
Contact with unemployed	Yes	-0.016	0.052	0.763		
	Don't Tell	-0.060	0.098	0.538		
Political orientation	Left-right scale	-0.029	0.011	0.010	*	
Egalitarian values		0.128	0.028	0.000	***	
Highest education parents	Vocational school	0.109	0.120	0.365		
	Grammar school/ teacher seminar	0.022	0.137	0.874		
	Higher vocational	0.022	0.120	0.852		
	University	0.141	0.120	0.240		
	Other	-0.052	0.164	0.753		
	Don't Know	0.072	0.128	0.574		
Future job prospects		0.029	0.028	0.303		
Perceived socioeconomic status		0.004	0.014	0.775		
School type	Medium/higher	0.001	0.044	0.975		

Model	(ii) Q7 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.158	0.518	0.000	***	1221
Q7	Linear	-0.157	0.130	0.227		
Replacement rate - children	Quadratic	0.078	0.120	0.514		
	Cubic	0.013	0.104	0.898		
	Quartic	-0.107	0.092	0.245		
Age	Age	-0.015	0.031	0.619		
Gender	Male	-0.121	0.050	0.016	*	
	Diverse/other	0.070	0.187	0.709		
Nationality	Swiss	0.000	0.065	0.994		
	EU	-0.033	0.063	0.604		
Contact with unemployed	Yes	-0.006	0.053	0.904		
	Don't Tell	-0.058	0.099	0.557		
Political orientation	Left-right scale	-0.030	0.011	0.008	**	
Egalitarian values		0.125	0.028	0.000	***	
Highest education parents	Vocational school	0.163	0.121	0.179		
	Grammar school/ teacher seminar	0.092	0.139	0.505		
	Higher vocational	0.082	0.122	0.503		
	University	0.190	0.122	0.120		
	Other	0.041	0.164	0.803		
	Don't Know	0.135	0.128	0.290		
Future job prospects		0.035	0.029	0.229		
Perceived socioeconomic status		0.004	0.014	0.789		
School type	Medium/higher	-0.010	0.045	0.818		

Model	(ii) Q8 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.198	0.518	0.000	***	1224
Q8	Linear	-0.014	0.092	0.880		
Replacement rate - maximum	Quadratic	0.047	0.082	0.563		
	Cubic	0.002	0.062	0.974		
	Quartic	-0.053	0.049	0.276		
Age	Age	-0.016	0.031	0.602		
Gender	Male	-0.134	0.050	0.008	**	
	Diverse/other	0.089	0.185	0.631		
Nationality	Swiss	0.021	0.065	0.752		
	EU	-0.040	0.063	0.529		
Contact with unemployed	Yes	-0.001	0.053	0.983		
	Don't Tell	-0.091	0.099	0.359		
Political orientation	Left-right scale	-0.030	0.011	0.007	**	
Egalitarian values		0.128	0.028	0.000	***	
Highest education parents	Vocational school	0.161	0.120	0.179		
	Grammar school/ teacher seminar	0.078	0.138	0.574		
	Higher vocational	0.074	0.120	0.540		
	University	0.175	0.122	0.150		
	Other	0.034	0.165	0.836		
	Don't Know	0.129	0.127	0.312		
Future job prospects		0.039	0.029	0.180		
Perceived socioeconomic status		0.007	0.014	0.616		
School type	Medium/higher	0.008	0.045	0.866		

Model	(ii) Q9 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.153	0.519	0.000	***	1223
Q9	Linear	0.152	0.086	0.078	.	
Benefit duration	Quadratic	0.108	0.076	0.155		
	Cubic	0.055	0.063	0.382		
	Quartic	0.113	0.048	0.019	*	
Age	Age	-0.013	0.031	0.664		
Gender	Male	-0.129	0.050	0.010	**	
	Diverse/other	0.097	0.184	0.599		
Nationality	Swiss	0.024	0.064	0.714		
	EU	-0.050	0.063	0.423		
Contact with unemployed	Yes	0.010	0.053	0.851		
	Don't Tell	-0.074	0.097	0.451		
Political orientation	Left-right scale	-0.031	0.011	0.005	**	
Egalitarian values		0.127	0.028	0.000	***	
Highest education parents	Vocational school	0.148	0.119	0.213		
	Grammar school/ teacher seminar	0.053	0.138	0.702		
	Higher vocational	0.070	0.119	0.555		
	University	0.175	0.120	0.146		
	Other	0.013	0.161	0.933		
	Don't Know	0.119	0.126	0.343		
Future job prospects		0.046	0.029	0.104		
Perceived socioeconomic status		0.006	0.014	0.658		
School type	Medium/higher	0.007	0.044	0.870		

Model	(ii) Q10 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	2.135	0.869	0.014	*	444
Q10	Linear	-0.140	0.137	0.308		
Social assistance	Quadratic	0.142	0.130	0.275		
	Cubic	0.122	0.102	0.235		
	Quartic	0.067	0.101	0.510		
Age	Age	0.054	0.049	0.268		
Gender	Male	-0.114	0.082	0.166		
	Diverse/other	-0.523	0.571	0.360		
Nationality	Swiss	-0.051	0.101	0.610		
	EU	0.040	0.100	0.692		
Contact with unemployed	Yes	0.125	0.082	0.129		
	Don't Tell	0.101	0.171	0.556		
Political orientation	Left-right scale	-0.019	0.018	0.288		
Egalitarian values		0.136	0.046	0.003	**	
Highest education parents	Vocational school	0.162	0.231	0.485		
	Grammar school/ teacher seminar	-0.053	0.253	0.836		
	Higher vocational	-0.175	0.238	0.463		
	University	0.050	0.236	0.834		
	Other	-0.088	0.272	0.745		
	Don't Know	-0.045	0.247	0.856		
Future job prospects		0.037	0.049	0.444		
Perceived socioeconomic status		0.007	0.024	0.768		
School type	Medium/higher	0.051	0.095	0.592		

Model	(ii) Q11 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.302	0.532	0.000	***	1231
Q11 Unemployment rate estimation (UR)		-0.002	0.002	0.204		
Q11c	Linear	0.036	0.116	0.760		
Confidence	Quadratic	0.077	0.077	0.322		
Q11*Q11c	Linear	-0.006	0.003	0.080		
Interaction UR Confidence	Quadratic	-0.001	0.002	0.659		
Age	Age	-0.022	0.031	0.473		
Gender	Male	-0.123	0.053	0.020	*	
	Diverse/other	0.110	0.179	0.537		
Nationality	Swiss	0.004	0.065	0.956		
	EU	-0.038	0.063	0.551		
Contact with unemployed	Yes	0.012	0.053	0.826		
	Don't Tell	-0.088	0.099	0.375		
Political orientation	Left-right scale	-0.026	0.011	0.019	*	
Egalitarian values		0.128	0.028	0.000	***	
Highest education parents	Vocational school	0.137	0.119	0.248		
	Grammar school/ teacher seminar	0.048	0.137	0.727		
	Higher vocational	0.074	0.120	0.540		
	University	0.160	0.121	0.185		
	Other	-0.013	0.163	0.934		
	Don't Know	0.114	0.126	0.364		
Future job prospects		0.047	0.029	0.100		
Perceived socioeconomic status		0.006	0.014	0.662		
School type	Medium/higher	-0.021	0.046	0.652		

Model	(ii) Q12 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.560	0.526	0.000	***	1216
Q12 Benefit overuse estimation (BO)		-0.008	0.002	0.000	***	
Q12c	Linear	0.085	0.127	0.503		
Confidence	Quadratic	0.039	0.088	0.656		
Q12:Q12c	Linear	-0.009	0.003	0.002	**	
Interaction BO Confidence	Quadratic	-0.002	0.002	0.362		
Age	Age	-0.028	0.030	0.353		
Gender	Male	-0.108	0.051	0.033	*	
	Diverse/other	0.082	0.168	0.626		
Nationality	Swiss	0.008	0.066	0.900		
	EU	-0.036	0.062	0.560		
Contact with unemployed	Yes	0.012	0.053	0.821		
	Don't Tell	-0.061	0.094	0.516		
Political orientation	Left-right scale	-0.024	0.011	0.029	*	
Egalitarian values		0.113	0.028	0.000	***	
Highest education parents	Vocational school	0.127	0.121	0.296		
	Grammar school/ teacher seminar	0.023	0.138	0.870		
	Higher vocational	0.035	0.123	0.777		
	University	0.148	0.124	0.231		
	Other	-0.023	0.166	0.888		
	Don't Know	0.085	0.128	0.506		
Future job prospects		0.048	0.029	0.099		
Perceived socioeconomic status		0.001	0.014	0.923		
School type	Medium/higher	-0.008	0.045	0.851		

Model	(ii) Q13 + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p	N	
Intercept	Intercept	3.267	0.516	0.000	***	1223
Q13 Poverty rate estimation (PR)		0.001	0.001	0.697		
Q13c	Linear	-0.130	0.099	0.188		
Confidence	Quadratic	0.038	0.064	0.551		
Q13*Q13c	Linear	-0.001	0.003	0.753		
Interaction PR Confidence	Quadratic	-0.004	0.002	0.063	.	
Age	Age	-0.025	0.031	0.415		
Gender	Male	-0.116	0.051	0.022	*	
	Diverse/other	0.117	0.180	0.518		
Nationality	Swiss	-0.013	0.065	0.843		
	EU	-0.053	0.063	0.396		
Contact with unemployed	Yes	0.015	0.053	0.784		
	Don't Tell	-0.063	0.098	0.524		
Political orientation	Left-right scale	-0.025	0.011	0.028	*	
Egalitarian values		0.122	0.028	0.000	***	
Highest education parents	Vocational school	0.171	0.118	0.148		
	Grammar school/ teacher seminar	0.067	0.136	0.624		
	Higher vocational	0.097	0.119	0.415		
	University	0.200	0.120	0.096	.	
	Other	0.011	0.163	0.944		
	Don't Know	0.137	0.126	0.279		
Future job prospects		0.042	0.029	0.141		
Perceived socioeconomic status		0.007	0.014	0.607		
School type	Medium/higher	-0.008	0.045	0.865		

Note: **** p < .001; *** p < 0.1; ** p < 0.5; . p < 0.1 For the categorical items (Q1-Q10) and the confidence in beliefs (Q11c-Q13c), the values presented in the table refer to the results of the polynomial orthogonal contrasts. Reference category for highest education parents (Obligatory school); for contact with unemployed (no); for gender (female); for school type (basic).

Model (iii): All Beliefs ~ Deservingness

Model	(iii) All beliefs ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.445	0.167	0.000	***	1422
Q1	Linear	0.042	0.404	0.917		
Highest spending	Quadratic	0.055	0.348	0.875		
	Cubic	-0.067	0.207	0.746		
	Quartic	0.045	0.092	0.622		
Q2	Linear	-0.040	0.128	0.752		
Lowest spending	Quadratic	-0.038	0.118	0.746		
	Cubic	-0.037	0.076	0.621		
	Quartic	-0.018	0.051	0.721		
Q3	Linear	-0.150	0.141	0.287		
Existence of eligibility rules	Quadratic	-0.056	0.126	0.656		
	Cubic	-0.003	0.086	0.975		
	Quartic	-0.010	0.066	0.876		
Q4	Linear	0.153	0.064	0.017	*	
Eligibility after education	Quadratic	-0.041	0.064	0.516		
	Cubic	-0.033	0.051	0.520		
	Quartic	-0.024	0.054	0.655		
Q5	Linear	-0.194	0.072	0.007	**	
Obligations	Quadratic	-0.040	0.069	0.562		
	Cubic	-0.007	0.053	0.890		
	Quartic	-0.066	0.046	0.146		
Q6	Linear	-0.259	0.084	0.002	**	
Eligibility - nationality	Quadratic	0.040	0.075	0.591		
	Cubic	-0.060	0.059	0.313		
	Quartic	-0.073	0.049	0.140		
Q7	Linear	-0.233	0.127	0.066	.	
Replacement rate - children	Quadratic	0.014	0.117	0.903		
	Cubic	-0.016	0.097	0.872		
	Quartic	-0.038	0.085	0.658		
Q8	Linear	0.030	0.081	0.712		
Replacement rate - maximum	Quadratic	0.014	0.073	0.851		
	Cubic	0.009	0.057	0.877		
	Quartic	-0.034	0.045	0.453		
Q9	Linear	0.142	0.084	0.091	.	
Benefit duration	Quadratic	0.067	0.075	0.372		
	Cubic	0.022	0.061	0.718		
	Quartic	0.078	0.046	0.088		
Q11 Unempl. rate estimation (UR)		0.000	0.002	0.808		
Q11c	Linear	0.065	0.113	0.565		
Confidence	Quadratic	0.083	0.072	0.246		
Q11*Q11c	Linear	-0.004	0.004	0.233		
Interaction UR Confidence	Quadratic	-0.002	0.003	0.333		
Q12 Benefit overuse estimation (BO)		-0.009	0.002	0.000	***	
Q12c	Linear	0.150	0.129	0.246		
Confidence	Quadratic	0.020	0.084	0.813		
Q12*Q12c	Linear	-0.009	0.003	0.005	**	
Interaction BO Confidence	Quadratic	-0.002	0.002	0.279		
Q13 Poverty rate estimation (PR)		0.003	0.001	0.013	*	
Q13c	Linear	-0.139	0.104	0.181		
Confidence	Quadratic	0.000	0.064	0.995		
Q13*Q13c	Linear	0.003	0.003	0.278		
Interaction PR Confidence	Quadratic	-0.001	0.002	0.631		

Note: **** p < .001; *** p < 0.1; ** p < 0.5, . p < 0.1 For the categorical items (Q1-Q10) and the confidence in beliefs (Q11c-Q13c), the values presented in the table refer to the results of the polynomial orthogonal contrasts. Reference category for highest education parents (Obligatory school); for contact with unemployed (no); for gender (female); for school type (basic). Q10 is not used in models (iii) and (iv) since it was only asked in the second round and hence would unduly reduce the sample size for the test.

Model (iv): All Beliefs + Control ~ Deservingness

Model	(iv) All beliefs + controls ~ deservingness					
Item	Description/Answer	Est	StdErr	p		N
Intercept	Intercept	3.435	0.589	0.000	***	1171
Q1 Highest spending	Linear	0.043	0.453	0.925		
	Quadratic	-0.097	0.393	0.804		
	Cubic	-0.029	0.232	0.901		
	Quartic	0.003	0.105	0.980		
Q2 Lowest spending	Linear	0.029	0.141	0.834		
	Quadratic	0.007	0.125	0.955		
	Cubic	-0.025	0.085	0.767		
	Quartic	-0.008	0.056	0.889		
Q3 Existence of eligibility rules	Linear	-0.201	0.163	0.219		
	Quadratic	-0.108	0.149	0.468		
	Cubic	-0.065	0.098	0.504		
	Quartic	-0.060	0.074	0.421		
Q4 Eligibility after education	Linear	0.114	0.072	0.116		
	Quadratic	-0.067	0.070	0.338		
	Cubic	-0.006	0.057	0.914		
	Quartic	-0.010	0.060	0.874		
Q5 Obligations	Linear	-0.167	0.080	0.038	*	
	Quadratic	-0.090	0.076	0.239		
	Cubic	0.009	0.059	0.885		
	Quartic	-0.040	0.052	0.442		
Q6 Eligibility - nationality	Linear	-0.272	0.095	0.004	**	
	Quadratic	0.002	0.084	0.985		
	Cubic	-0.068	0.066	0.300		
	Quartic	-0.027	0.055	0.626		
Q7 Replacement rate - children	Linear	-0.193	0.146	0.188		
	Quadratic	0.059	0.135	0.664		
	Cubic	-0.027	0.110	0.806		
	Quartic	-0.084	0.098	0.390		
Q8 Replacement rate - maximum	Linear	0.005	0.093	0.961		
	Quadratic	0.058	0.083	0.483		
	Cubic	-0.011	0.064	0.858		
	Quartic	-0.046	0.050	0.358		
Q9 Benefit duration	Linear	0.159	0.091	0.082		
	Quadratic	0.103	0.082	0.210		
	Cubic	0.051	0.066	0.444		
	Quartic	0.133	0.050	0.008	**	
Q11 Unemployment rate estimation (UR)		0.000	0.002	0.940		
Q11c Confidence	Linear	0.145	0.127	0.253		
	Quadratic	0.087	0.078	0.266		
Q11*Q11c Interaction UR Confidence	Linear	-0.006	0.004	0.150		
	Quadratic	-0.001	0.003	0.805		
Q12 Benefit overuse estimation (BO)		-0.009	0.002	0.000	***	
Q12c Confidence	Linear	0.115	0.139	0.409		
	Quadratic	-0.016	0.092	0.865		
Q12*Q12c Interaction BO Confidence	Linear	-0.010	0.003	0.002	**	
	Quadratic	-0.003	0.002	0.286		
Q13 Poverty rate estimation (PR)		0.002	0.001	0.213		
Q13c Confidence	Linear	-0.025	0.117	0.830		
	Quadratic	0.084	0.071	0.242		
Q13*Q13c Interaction PR Confidence	Linear	0.001	0.003	0.704		
	Quadratic	-0.003	0.002	0.088		
Age	Age	-0.021	0.032	0.516		

Gender	Male	-0.057	0.054	0.298	
	Diverse/other	0.180	0.189	0.340	
Nationality	Swiss	-0.032	0.070	0.641	
	EU	-0.072	0.065	0.272	
Contact with unemployed	Yes	0.011	0.056	0.847	
	Don't Tell	0.021	0.099	0.830	
Political orientation	Left-right scale	-0.025	0.012	0.034	*
Egalitarian values		0.102	0.028	0.000	***
Highest education parents	Vocational school	0.149	0.130	0.254	
	Grammar school/ teacher seminar	0.038	0.145	0.796	
	Higher vocational	0.058	0.133	0.665	
	University	0.178	0.131	0.172	
	Other	-0.055	0.170	0.745	
	Don't Know	0.081	0.138	0.559	
Future job prospects		0.026	0.030	0.399	
Perceived socioeconomic status		0.000	0.015	0.985	
School type	Medium/higher	-0.041	0.050	0.410	

Note: **** p < .001; *** p < 0.1; ** p < 0.5; * p < 0.1 For the categorical items (Q1-Q10) and the confidence in beliefs (Q11c-Q13c), the values presented in the table refer to the results of the polynomial orthogonal contrasts. Reference category for highest education parents (Obligatory school); for contact with unemployed (no); for gender (female); for school type (basic). Q10 is not used in models (iii) and (iv) since it was only asked in the second round and hence would unduly reduce the sample size for the test.

VI.2.7 A7 Unweighted Regression Results Task II

Models		(i) Individual level charact. ~ influential misinfo index					(ii) Engagement with soc. agents ~ influential misinfo index					(iii) Directional motives ~ influential misinfo index					(iv) Contact with unempl. ~ influential misinfo index					(v) Full model ~ influential misinfo index					
		Unweighted					Unweighted					Unweighted					Unweighted										
Items	Description	Est	StdErr	p	N	Est	StdErr	p	N	Est	StdErr	p	N	Est	StdErr	p	N	Est	StdErr	p	N						
Intercept	Intercept	2.76	0.56	0.00	***	1397	1.82	0.05	0.00	***	1399	1.55	0.06	0.00	***	1304	1.69	0.04	0.00	***	1304	2.69	0.62	0.00	***	1242	
Gender	Gender (Male)	0.09	0.06	0.14		1397																					
	Gender (Diverse)	0.06	0.24	0.79		1397																					
Education	Level of formal education (binary)	-0.22	0.05	0.00	***	1397																					
Interest	Interest in social policy	-0.09	0.05	0.06	.	1397																					
	Interest in politics	-0.01	0.04	0.76		1397																					
Nationality	Swiss	-0.10	0.07	0.16		1397																					
Age	Age	-0.05	0.04	0.22		1397																					
Internet	Engagement Internet.L						0.06	0.11	0.58																		
	Engagement Internet.Q						-0.02	0.08	0.84																		
	Engagement Internet.C						0.00	0.07	0.98																		
Parents	Engagement Parents.L						-0.02	0.09	0.82																		
	Engagement Parents.Q						0.23	0.07	0.00	**																	
	Engagement Parents.Q						0.07	0.06	0.18																		
Friends	Engagement Friends.L						0.08	0.11	0.45																		
	Engagement Friends.Q						0.11	0.08	0.19																		
	Engagement Friends.C						0.08	0.07	0.24																		
School	Engagement School.L						0.12	0.12	0.33																		
	Engagement School.Q						0.12	0.09	0.20																		
	Engagement School.C						0.04	0.06	0.48																		
Political orientation	Left-right scale											0.04	0.01	0.00	***	1304											
Contact with unemployed	Yes																	0.06	0.06	0.37							
	Don't tell																	0.06	0.10	0.58							

Note: **** p < .001; *** p < 0.1; ** p < 0.5; .! p < 0.1. 'L' linear polynomial orthogonal contrast; 'Q' quadratic; 'C' cubic. Reference category for gender: female. Reference category for contact with unempl.: no.