

IDENTITY AS SELF-IMAGE

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Abstract

We review the economic literature on self-image, which conceptualizes identity as a set of beliefs about one's core traits, values, goals, and social ties. Self-image concerns lead individuals to process information and make choices in non-standard ways that help affirm and protect certain valued identities. We first present the main cognitive mechanisms involved within a simple unifying framework. We then survey the extensive laboratory, online, and field experimental literature on the nature and behavioral implications of self-image concerns. We discuss in particular how they give rise to information and decision avoidance, motivated memory and beliefs, excuse-driven behavior, preferences for truth-telling, hypothetical bias, moral cleansing and moral licensing, collective identities, political preferences, and other forms of self-signaling or self-deception. We subsequently discuss common empirical strategies used to identify self-image concerns, as well as the threats to their validity and how to alleviate them. We conclude by outlining open questions and directions for future research on the belief-based approach to identity.

Keywords: Self-image, identity, motivated beliefs, belief-based utility, behavioral economics, experimental economics

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“An identity is a definition, an interpretation, of the self (...) People who have problems with identity are generally struggling with the difficult aspects of defining the self, such as the establishing of long-term goals, major affiliations, and basic values.” (Baumeister, [2022](#)).

1 Introduction

One can broadly distinguish two complementary approaches to the study of identity in economics. The first one is based on preferences and emphasizes the social aspects of identity. The second one is based on beliefs about the self and emphasizes the cognitive aspects of identity.

In the line of work pioneered by Akerlof and Kranton ([2000](#), [2005](#), [2010](#)), an identity is modeled as a set of payoffs and internalized social norms attached to membership in a group. Individuals gain or lose material and symbolic payoffs, such as social status or self-esteem, when identified with some group, and incur psychic losses when their actions or personal characteristics deviate from those prescribed by the group’s norm.¹ Identities can be exogenously assigned by nature or society (gender, race), manipulated by some principal (firms, the military, politicians, experimenters), or determined by previous actions of the individual (membership in a political party or religion). Alternatively, an individual may themselves choose to identify with one group or the other, based on the associated material and psychological costs and benefits (Shayo, [2009](#), [2020](#)). In that case, they are essentially choosing their preferences from a socially determined set of possibilities.² The psychological foundations of this approach draw on the vast classical literature on conformity (Asch, [1955](#); Cialdini and Goldstein, [2004](#)), norm formation (Sherif, [1935](#)), self-categorization and ingroup-outgroup rivalry (Tajfel, [1978](#); Tajfel and Turner, [1979](#)).

This preference-based modeling framework is highly versatile and has been applied to a

¹Relatedly, in Brekke et al. ([2003](#))’s model of moral motivation, an individual experiences a psychic cost (interpreted as a loss in self-esteem) to the extent that their action differs from the “universalizing” Kantian norm or rule, namely the counterfactual action which, if it were taken by everyone, would maximize social welfare.

²A related approach is that of Bisin and Verdier ([2001](#)), in which it is parents who choose the preferences of their children, trading off a desire for similarity to their own tastes against how adapted the inculcated preferences will be to the society in which their offspring will live.

wide range of domains, many of which are reviewed in other chapters of this volume: gender roles (Bertrand et al., 2015), workplace relations (Akerlof and Kranton, 2005), redistributive politics (Shayo, 2009; Bonomi et al., 2021), attitudes toward immigration (Grossman and Helpman, 2020), labor supply decisions (Oh, 2023), ethnic conflict (Shayo, 2020), and rule-following norms (Schneeberger and Krupka, 2023), among others.

In the second approach, introduced by Bénabou and Tirole (2002, 2004, 2011), an identity is modeled as a self-image: a set of beliefs about one's core traits, values, long-term goals, and social ties. Psychologically, this view builds on the likewise vast literature on "the self" (Baumeister, 2022), which encompasses work on self-perception and self-awareness, self-esteem, cognitive dissonance, and self-deception. Self-perception theory, in particular, emphasizes that people's true motivations, preferences and emotions are not directly accessible or transparent to them, but instead inferred by observing their own behavior and its context (Bem, 1972). In self-awareness theory (Duval and Wicklund, 1972), increased attention to the self raises the motivation to behave consistently with one's standards of behavior; if this is too costly, attention will instead be shifted away (see Morin (2011) and Smári et al. (2008) for reviews). Relatedly, when an inconsistency arises between a deeply held self-concept and what the evidence points to, cognitive dissonance results (e.g., Aronson, 1969); people then typically resolve it in favor of their preferred self-image, through various forms of motivated reasoning and self-deception (Kunda, 1990).³

Indeed, certain beliefs about oneself and one's place in the world can be more desirable to hold than fully objective ones, a point first made in economics by Akerlof and Dickens (1982) and Akerlof (1989) and reviewed extensively in Bénabou and Tirole (2016). Positive views of one's abilities, social worth, or endowments (professional, social, cultural) enhance self-esteem and hopefulness, foster a sense of belonging, and lower anxiety, thus providing hedonic benefits (Loewenstein, 1987; Caplin and Leahy, 2001; Köszegi, 2006; Bénabou

³In recent years, work in neuroscience on self-referential processing and active inference has begun to provide new foundations for these theories (Friston, 2010; Sharot and Garrett, 2016). Also related is self-affirmation theory (Steele, 1988; Sherman and Cohen, 2006), which holds that: (i) people are motivated to maintain a sense of self-integrity—the belief that they are good, competent, and moral— and threats to this belief trigger defensive reactions and cognitive distortions; (ii) because integrity is multidimensional, affirming positive aspects of the self in unrelated domains (e.g., family, honesty, creativity) can attenuate these effects. The effectiveness of such interventions remains debated, however.

and Tirole, 2011). Optimistic beliefs can also be functionally adaptive: they serve as mental commitment devices encouraging effort, resilience in the face of adversity, or stronger dedication to a cause (Bénabou and Tirole, 2002, 2004; Compte and Postlewaite, 2004; Borisova and Vellodi, 2024). Another instrumental benefit is that being convinced that one has such qualities makes it easier to convince others that one possesses them (see Hippel and Trivers (2011) for an evolutionary explanation).

These non-standard roles of beliefs have important informational and behavioral consequences bearing on identity. External feedback provides the individual with information about their type (ability, resilience, generosity, etc.), as does reflecting upon their own actions – a self-inference process akin to that of social reputation. Consequently, people will process information and make choices in ways that help affirm and defend their valued identities. In simplified terms, in the first type of model, agents choose their preferences, whereas in the second, they choose their beliefs, subject in both cases to reality constraints, cost-benefit tradeoffs, and potential manipulation by others.

Because it is explicitly cognitive, the identity-as-self-image modeling framework can account for many phenomena, reviewed in this chapter, that cannot arise when individuals have full knowledge of their preferences – whether standard or “behavioral.” Among those that have been formally modeled are information avoidance and ego-protecting task choices (Carrillo and Mariotti, 2000; Köszegi, 2006); selective memory or awareness and asymmetric updating of beliefs to good and bad news (Bénabou and Tirole, 2002; Chew et al., 2020); and self-signaling behaviors –taking actions intended to convince or reassure oneself about one’s type– that can lead to rigid personal rules, endowment effects, and escalating commitments (Bodner and Prelec, 2003; Bénabou and Tirole, 2004, 2011; Mijović-Prelec and Prelec, 2010). Closely related behaviors flowing from this framework include directionally motivated “errors” in simple computations or inferences (González-Jiménez, 2022; Bolte and Fan, 2023; Exley and Kessler, 2024) and self-serving failures of Bayesian skepticism, achieved through selective depth of reasoning about good and bad news (Taber and Lodge, 2006; Hagenbach and Saucet, 2025). Further distinctive implications include the crowding out of intrinsic motivation by extrinsic incentives (Bénabou and Tirole, 2006), moral cleans-

ing or licensing, and mental taboos (Bénabou and Tirole, 2011; Fershtman et al., 2011; Hong et al., 2025).

Imperfect self-knowledge also combines with selective recall in Kőszegi et al. (2022) to generate fragile, history-dependent self-esteem. In Heidhues et al. (2023) and Hestermann and Le Yaouanq (2021), dogmatic priors about one’s abilities or preferences (possibly a strong form of motivated beliefs), or even just incorrect initial priors, induce persistent attribution errors: taking credit for successes while blaming external factors for failures,⁴ persistent misunderstanding of one’s own motives (true identity), and decision mistakes that can worsen over time or trap the individual in situations that it would be optimal to quit.⁵

Another important feature of self-image concerns is that, since they are inherently inward-looking, they can shape behavior even in private decisions such as charitable giving (e.g., Exley, 2016), investment choices (Henkel and Zimpelmann, 2025), or modify responses in anonymous surveys (Bursztyn et al., 2025). They also need not always be anchored in group identification or social categorizations, but can also pertain to personal dimensions of identity, such as being honest, competent, or disciplined.

While the preference-based and belief-based modeling approaches highlight different facets of identity, they have strong connections to each other, as should be expected from the significant overlap in the psychology literatures on which they draw. First, what beliefs are sources of self-worth is in part socially determined, like preferences in the first type of model. Strength and courage, intelligence, or patience are valued differently across settings: army versus academia, blue versus white collar jobs, etc. Even notions of morality vary significantly across societies and periods. Examples include differing “moral foundations” (Graham et al., 2011, 2013), universalism versus parochialism (Enke et al., 2023; Cappelen et al., 2025), and consequentialist versus deontological ethics (Alger and Weibull, 2013; Bénabou et al., 2024). Second, self-image is shaped both by individual experiences and by

⁴On scapegoating, see also Bénabou and Tirole (2009) in the context of bargaining breakdowns and conflicts, such as those documented by Babcock and Loewenstein (1997).

⁵In Santos-Pinto and Sobel (2005), agents have heterogeneous production functions mapping multiple skills into general ability. They invest in skills to maximize ability, then make social comparisons by (dogmatically) projecting their own production function onto others, resulting in an inflated self-image.

the actual or imagined judgment of others. This is what Adam Smith (1759) termed “the ideal man within the breast, (...) the impartial spectator”, Cooley (1902) the “looking glass self”, and Leary and Downs (1995) the “sociometer”. Third, people selectively interact with similar individuals (homophily) whose behaviors and judgments will likely provide identity-confirming signals, while shunning and ostracizing those whose identity-dissonant opinions or norm-breaking actions could threaten their self-view (Bénabou and Tirole, 2011).

Conversely, the strength of the internalized norms and the degree of identification with a group emphasized in the first type of model are often subject to substantial cognitive uncertainty, as is the case for many other aspects of a person’s preferences (Enke and Graeber, 2023). People are commonly conflicted about how much they would really sacrifice for a group’s cause or adherence to its norms and duties, how important their work is versus family identity, their attachment to ancestral traditions versus embracing modern ways, their masculine or feminine identity, or their religious identity. In fact, it is often those whose identity is most insecure (adolescents, new religious or political converts, recent immigrants) who are the most zealous in affirming it. Once imperfect self-knowledge enters the picture, the role of beliefs and potentially motivated or misspecified learning about oneself emphasized by the second type of model comes into play.

Another important feature shared by preference-based and belief-based models is the potential to generate multiple social norms. These can arise both within a group, due to conformity payoffs in the first case or pooling on certain actions in the second, and in the way a population distributes itself across multiple identities, as these choices generate externalities in either preferences (Shayo, 2009) or information (Battaglini et al., 2005; Bénabou and Tirole, 2011).

In the remainder of this chapter, we will focus on identity as self-image. We start in Section 2 by presenting a simple theoretical framework that synthesizes the main modes of identity-management that arise when self-knowledge is imperfect. We then survey the large experimental literature that has arisen in this area over the last two decades. In Section 3, we thus review the evidence documenting many of the behaviors that can be naturally explained by self-image motives and are not easily explainable otherwise. Many applications

have been in the two domains of ability and morality, where self-serving beliefs are ubiquitous. Others include attractiveness, social status, greed, and political or religious identity. In Section 4, we move from individual self-image to the nascent literature on the cognitive foundations of collective beliefs and identity. In Section 5, we discuss common experimental methods researchers have used to identify self-image motives, connecting papers across domains; we then outline important directions for future work. Section 6 concludes.

Before proceeding, we note other review articles related to this chapter. Bénabou (2015) and Bénabou and Tirole (2016) provide broad reviews of the economics of motivated reasoning and cognition. Golman et al. (2017) provide an extensive survey of the literature on information avoidance, Amelio and Zimmermann (2023) of that on motivated memory, and Vu et al. (2023) a meta-analysis of studies on willful ignorance. Most closely related, and at times overlapping, is a concurrent survey by Lindquist et al. (2025) that focuses on the specific implications of belief management for unethical behavior.

2 A simple unifying framework

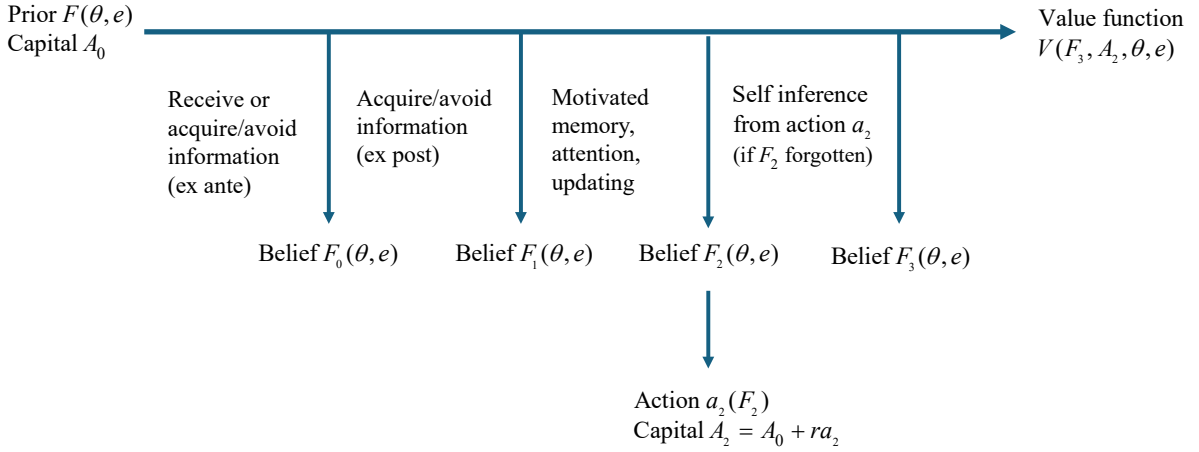
In this section, we explain the main *identity-management* behaviors mentioned earlier and documented in the experimental literature we will review. Most papers focus on one or at most two, but we present them in a unified framework, illustrated in Figure 1, to make clear their similarities, differences, and complementarities.⁶ In each case, we provide examples and mention some relevant papers, revisited in more detail later on.

We consider an individual who acts and/or thinks during four periods, $t = 0, \dots, 3$. From then on, their expected present value of utility over all $t \geq 3$ is given by a value function V that is detailed below.

The individual is characterized by a personal parameter θ , such as ability, resilience, prosociality/morality, how much they value their relationship or belonging to some group, culture, or ideal (e.g., religion), or conversely how valued they are by their peers. We can think of θ as representing “who the person truly is”. Self-knowledge is notoriously imperfect,

⁶This is clearly not a fully specified theoretical model, but a conceptual synthesis of many previous mechanisms and results. For formal details, see in particular Bénabou and Tirole (2011).

Figure 1: **Modes of identity management**



Notes: Individual's full type: (θ = true preference or ability, e = externality on others). Beliefs at time t : $F_t(\theta, e)$, with self-image being the marginal $I_t(\theta)$. A_t : identity-congruent assets such as personal, social, or cultural capital.

so at a point in time, they may not know θ precisely, but only have a belief distribution over it. We define this belief as the agent's *self-image*, or *sense of identity*. While preferences can of course change over time, we keep θ fixed to emphasize the dynamics of self-beliefs and contrast this with identity models based on preferences.

Depending on the setting, the individual's actions can have consequences that they may also not fully know, such as their externalities on others. We denote these situational variables as e . Initially, the agent has a prior distribution $F(\theta, e)$ over "the person and the situation" (Ross and Nisbett, 1991), which we refer to as the agent's full type. In later periods $t = 0, \dots, 3$, their updated belief is denoted $F_t(\theta, e)$. This belief will often be separable in θ and e but it need not, for instance, if there is self-selection of agents into different settings. We will denote $I_t(\theta)$ the marginal distribution over θ , which is the individual's self-image at time t .

The agent starts with an initial endowment of *identity-relevant capital* A_0 , which may be fixed (race, sex) or augmentable: human or professional capital, number of children or number of ties with some social group, knowledge of a culture, record of good versus bad deeds, etc. In period 2, the agent may take, at some cost, an action a_2 that potentially increases the stock to $A_2 = A_0 + ra_2$, with $r \geq 0$. In many of the papers discussed below, this will be a dictator-type allocation or other prosocial decision, but other examples include labor/family time budgeting, investing in new social ties, choice of clothing or food, conforming to group

norms or religious prescriptions, etc.

During periods $0, \dots, 3$, the agent engages in various learning, remembering, and other cognitive operations that are described below, arriving at a final self-image $I_3(\theta)$, and more generally a final joint belief about themselves and their environment $F_3(\theta, e)$. From there on, the expected present value of their future utility, including from potential future decisions, is a functional $V(F_3, \theta, e, A_2)$. The dependence on the actual type (θ, e) and asset stock A_2 is standard, so we focus here on the dependence on the belief. In particular, we assume that V increases with the belief about θ (in the FOSD sense), at least over the relevant range: the agent cares about their self-image, and therefore will act and reason in ways that seek to preserve, affirm or enhance it.

As discussed earlier, the sources of such utility from self-image can be hedonic or functional, with two main variants in each case.

1. Pure, intrinsic *self-esteem*: $V = s f(I_3)$, where s is a parameter measuring salience and f is an increasing functional that can be linear, concave or convex, potentially creating a motive for information aversion or information seeking. For instance, the agent values seeing themselves as a smart, generous, honest, masculine or feminine person, *per se*.⁷
2. *Anticipatory utility* over the future benefits to be derived from one's personal and social assets: $V = W(f(I_3)A_2, \theta, e)$.⁸ The complementarity between I and A_2 makes maintaining a positive self-image (high F_3) all the more important, the higher the level of the identity-congruent asset. For instance: (i) There are of course important sources of anticipatory utility not related to self-image, such as beliefs about future outcomes of lotteries and financial investments. These fall outside the scope of this paper, however. being more altruistic or reciprocal toward some group (national, cultural, ethnic) will be more valuable, the more social ties one has with it, or the tighter those are; (ii)

⁷In practice, the boundary between pure self-esteem and the type of anticipatory identity-utility discussed below is somewhat fluid. Being intelligent, hardworking, honest, etc., typically ensures a better future than possessing the opposite traits. On the other hand, even people who are about to die care a lot about their self-image and dignity. The main difference is the role of horizon length, which we discuss later on.

⁸We abstract here from sources of anticipatory utility unrelated to self-image, such as beliefs about future outcomes of lotteries and financial investments. These can be represented in the same "unknown types" framework, however.

being talented or intrinsically motivated for some activity (education, craft, military service) will more important, the more opportunities one has or will have to engage in it; (iii) being a family-loving person will be more valuable, the more relatives one has; (iv) having a strong faith in some religion involving afterlife rewards and punishments (heaven and hell, karma) will be more reassuring, the more one has followed its precepts, etc. Consequently, in each of these cases, seeing oneself as having more of the relevant attribute will raise anticipatory utility.

Conversely, the complementarity makes investing further in those identity-congruent assets (increasing A_2 via a_2) all the more desirable, the stronger is one's sense of that identity. Importantly, the combination of these two mechanisms can lead to “escalating commitments”: over time, the individual simultaneously invests more and more in some asset and develops a stronger and stronger sense of the identity associated with it (e.g., workaholism and professional identity, compulsive rituals and religious identity, activism and political identity). Moreover, as suggested by the term, such escalations can be “identity traps” that actually lower the agent's intertemporal welfare (a form of hedonic treadmill, see Bénabou and Tirole (2011)).

3. An *instrumental value of self-confidence* or identification with one's work (research, firm's mission, serving one's country), which acts as an internal commitment device inducing effort and perseverance for an individual with imperfect willpower, $W = sV(I_3, \beta, \theta, e, A_2)$. In such cases, moreover, the type of identity escalation mentioned above can be beneficial.
4. *Persuasiveness to others*. Alternatively, but also instrumental, V may represent the value of such beliefs emanating from the fact that it is easier to convince others of one's qualities or likelihood of success if one believes in them. Quite often, as Arendt (1972) observed, “The deceivers began by deceiving themselves.”

With these elements in place, we now discuss the main cognitive strategies that people use (consciously or not) to maintain and invest in a valued identity, and some of their consequences.

Ex-ante information seeking or avoidance. In period 0, the agent may receive a signal σ_0 about their type (θ, e) according to some information structure, either exogenous or chosen by them ex ante, at some cost. The resulting belief, denoted F_0 , is a (weakly) mean-preserving spread of the initial F . Of particular interest are cases where the agent pays a cost in order not to learn about their true type, or equivalently foregoes potential gains by avoiding choice situations that might “test” who they really are. The purpose of such ex-ante willful ignorance, which can occur when the value function V is concave in beliefs, is to preserve a relatively good self-image rather than endanger it by learning possibly bad news about oneself, or the tradeoffs one is facing. The most often cited examples are that of a patient who avoids taking a medical test and, in the context of self-image, the paradigmatic experiment of Dana et al. (2007) in which subjects choose to remain ignorant of how their choices affect someone else’s payoff. As we will argue, however, the latter more plausibly corresponds to the next category of information aversion.

Ex-post, motivated information seeking or avoidance. Most often, people already know something about their type –from external sources, previous experience, or even just a first, fleeting but “symptomatic” sense of how they would act if confronted with some situation. The agent may then have the opportunity to acquire a further signal σ_1 , or once again pay to avoid information or choice opportunities. Importantly, this decision now depends on their belief F_0 , and hence on their current sense of identity. Accordingly, in Eil and Rao (2011), subjects who received bad news about their relative IQ have a negative willingness to pay for fully learning it, whereas it is positive for those who received good news. Similarly, in Müller et al. (2022), individuals who have exceeded the desired number of children they stated ten years earlier are willing to pay not to be reminded of what it was. In Dana et al. (2007) there is no previous signal within the context of the experiment, but it is most likely those who know or suspect they would make a selfish choice in a dictator game who prefer not to learn whether their payoffs and those of the recipient are positively or negatively correlated. And indeed, almost all of them subsequently make the self-serving choice.⁹

⁹The key difference between ex-ante and ex-post information avoidance is that the former involves a simple optimization by an uninformed Self 0 of the agent, whereas the latter involves a game of strategic information transmission between an informed Self 0 and subsequent selves, potentially resulting in multiple

Motivated memory, attention, or awareness. During period 2, which one should think of as lasting for a while, the agent may miscode, forget, or misremember the various signal(s) they received previously. In particular, since V is increasing in self-image, they will tend to selectively recall good news and forget bad ones, resulting in positively distorted memories $(\tilde{\sigma}_0, \tilde{\sigma}_1)$. Examples of such motivated recall include Zimmermann (2020) and Chew et al. (2020) for subjects’ IQ, Huffman et al. (2022) for managers’ performance, and Müller et al. (2022) for fertility preferences. People also often have motivated memories of their past actions, since, as discussed below, those can be informative about who they are. We thus all tend to remember better the instances when we acted morally than those where we behaved selfishly (e.g., Saucet and Villeval, 2019; Carlson et al., 2020).

Motivated belief updating. Together with the signals received, these and related motivated-reasoning processes result in an updated belief $F_2(\theta, e)$, and especially an updated self-image $I_2(\theta)$ at the end of period 1, that can depart from objectivity. If the agent fully understands their own tendencies to selectively acquire and process information (*metacognition*) and they are a sophisticated Bayesian, F_2 cannot be biased on average relative to F , but it can be made more or less informative, or more or less skewed, which again can be valuable depending on the properties of the intertemporal utility V with respect to beliefs. If, however, the agent is *naïve* and takes their recollection $(\tilde{\sigma}_0, \tilde{\sigma}_1)$ partly at face value, or similarly neglects the fact that the decision to acquire or avoid σ_1 depends on σ_0 and is thus informative about it –e.g., choosing ignorance about externalities is a bad sign concerning prosociality– then F_2 can be biased on average as well.

There is good evidence for at least partial naivete with respect to self-deception: agents who display self-serving recall do end up with higher mean beliefs about their IQ or professional ability (see earlier cites, and others in Section 3.2), and those who hide behind fairly transparent excuses do end up feeling less responsible for selfish outcomes they purposefully brought about (Hamman et al., 2010). Similarly, in several studies, agents effectively misapply Bayes’ rule in an asymmetric, self-serving manner, resulting again in inflated self-views on average (e.g., Eil and Rao (2011) and Möbius et al. (2022)).

personal equilibria. Thus, both a mode of “positive thinking” and one of “know thyself” can be sustainable.

Identity-congruent choices: effect of identity on behavior. At the end of period 2, given their belief F_2 , the individual chooses a_2 : how much to give in a dictator game, how much to work, how well to conform to their group's norm, etc. If F_2 has been distorted by information avoidance or motivated recall/updating, the decision is also distorted. Depending on whether the value of the distortion is hedonic or instrumental, this can be harmful or beneficial. In the first case, an overconfident agent may undertake tasks that are too hard, one who denies their homosexual desires may choose partners of the wrong sex for them, one who overestimates their altruism may give more than what really makes them happy, and one who inflates (or insufficiently deflates) their belief in some religion may over-comply with its precepts and rituals. In the second, an agent's greater self-confidence may increase their motivation for effort and perseverance, or their ability to favorably impress others. Note that, conversely, the choice of a_2 is informative about F_1 , and in particular potentially "diagnostic" about the agent's personal type θ , a point we return to below.

Following their decision a_2 , during period 3, the agent may again forget or misremember (exogenously or endogenously) their previous state of knowledge F_2 (or the signals that led to it) and the associated motivation that really determined their choice of a_2 . They could also selectively remember a_2 itself, such as mostly recalling cases where one acted prosocially, as discussed earlier.

Self-signaling: effect of behavior on identity. At the start of period 3, if the individual has perfect introspective access to (e.g., recollection of) their previous belief F_2 or the signals (σ_0, σ_1) that led to it, their earlier choice of a_2 conveys no extra information, so their final belief remains $F_3 = F_2$. If, on the other hand, there is a loss of information during period 3, the action a_2 (when recalled) is informative and will affect F_3 . Anticipating this in period 2, the agent has an incentive to choose a_2 in a way that not only reflects its cost and effect on A_2 , but is also designed to affect the belief F_3 in a desirable direction. That is, *the action is used as a signal* (to future selves) of what kind of a person one is. For example, selfish types could pool with more generous ones by behaving as altruistically as them, or generous types could behave even more generously than they would absent identity concerns to separate from selfish ones. More generally, self-signaling creates a further force toward identity-congruent

investments and escalating commitments of the types discussed above: the agent now also engages in these behaviors to affirm and reassure themselves about their identity.¹⁰

Mental taboos. In some cases, acquiring information at the start of period 1 is itself bad news about the self: simply pondering the costs and benefits of disloyalty to the group, or those of certain morally “repugnant transactions”, or merely entertaining questions about the tenets of one’s faith, can be a signal of a low θ , degrading one’s self-view or “sacred values” (Bénabou and Tirole, 2011; Gneezy and Rustichini, 2011). The individual will then forbid themselves from certain *thoughts*, or even find those deeply aversive.¹¹

3 Behavioral manifestations of self-image

We now review the evidence on some of the main behaviors discussed above as arising from imperfect self-knowledge and self-image concerns. In each case, we describe the first influential studies and explain why their findings challenge both standard theory and common behavioral models, but can be naturally explained by self-image motivations. We then discuss how the literature on each of these behaviors has evolved since the initial studies.

3.1 Avoiding information and choice situations

In non-strategic settings, standard economic agents always weakly prefer more information to less, and strictly so if it is decision-relevant, helping them make better choices. Similarly, they prefer making decisions to avoiding them and letting some default prevail.¹²

¹⁰Resulting compulsive behaviors include those of the anorexic fearing that they are really a glutton, the miser fearing that they are a spendthrift, and, in the religious domain mentioned above, what psychologists term *scrupulosity*. That is, religious or moral obsessions associated with cognitive distortions such as thought–action fusion (defined below), inflated responsibility, fears of having committed sin and of divine punishment, and intolerance of uncertainty, resulting in guilt-laden thoughts and ritualized behaviors (e.g., repetitive prayer, confession). See, e.g., Abramowitz and Jacoby (2014) and Abramowitz and Buchholtz (2020).

¹¹This is related to the notion of *thought-action-fusion* in psychology, a cognitive distortion common in obsessive-compulsive disorders wherein individuals believe that merely thinking about an unacceptable or disturbing event or action (i) makes it more likely to happen; (ii) is morally equivalent to carrying out the action. See Shafran et al. (1996).

¹²Agents with self-control problems may choose commitment over discretion. They may also avoid information, but this is isomorphic to behavior driven by self-image concerns in which they prefer not to learn about their own type; see Carrillo and Mariotti (2000). Pennesi (2023) shows more generally how identity tradeoffs drive in similar ways agent’s choices of information and opportunities. Choice overload or mental decision costs may also explain some of these behaviors, but this is implausible in the very simple settings of

In contrast, and different also from preference-based models of identity, an individual who seeks to maintain a certain self-view may want to avoid information that could threaten it, as well as decision situations in which their choice could reveal an undesirable type.¹³

For instance, consider a person who is generally self-interested but would like to think of themselves as altruistic, and encounters an appeal by a charity to donate money for a good cause. An altruistic individual would gladly give if the charity uses the money efficiently and this leads to a significant improvement in other people's lives, but not if the organization is ineffective or corrupt. The charity, or some rating organization, makes credible information on its operations and impact easily available. A person who feels ungenerous when encountering the appeal, however, has an incentive to avoid looking at such information. Remaining ignorant provides an excuse not to give, while maintaining a belief that they are generally an altruistic person.

Importantly, for this strategy to work, choosing ignorance and then just following self-interest must be less damning than having behaved selfishly with full knowledge of adverse consequences for others. This corresponds to a self-signaling model in which remaining ignorant is easier to rationalize away ("I did not really understand, was not really paying attention," etc.) and/or less memorable than an explicit sharing choice, or less informative about exactly how selfish the person is; see Section 3.4 for further discussion.

3.1.1 Experimental paradigm

Many papers that have studied information avoidance give subjects the choice of whether to reveal payoff-relevant information about prosocial decisions. Dana et al. (2007) conduct an influential experiment creating such a situation. Its key feature is a "moral wiggle room game", which is a modified dictator game. Dictators allocate money between themselves and another subject by choosing between two options, A and B. They know that Option A yields \$6 for them, and Option B only \$5. Concerning the recipients, there are two equiprobable states of the world. In State *Unaligned*, they receive \$1 when the dictator chooses Option A,

the literature surveyed below, and cannot account for why agents would pay not to be informed even when the information is not decision-relevant.

¹³Self-image concerns are admittedly not the only reason for individuals to avoid information. For a discussion of non-standard preferences leading to such behaviors, see Golman et al. (2017).

and \$5 when Option B is chosen. In State *Aligned*, the outcomes are switched: now Option A leads to \$5 for the recipient, and Option B to \$1. In standard conditions where there is full information about the state, under *Aligned* (almost) all Dictators naturally chose the Pareto-dominant Option A. Under *Unaligned*, which features a tradeoff between an extra \$1 for themselves and an extra \$4 for the recipient, 74% choose the prosocial (and total-payoff-maximizing) Option B, in line with standard results from the large literature on dictator games.¹⁴

The key feature of the moral wiggle room game, however, is that Dictators do not know which state they are in, but can learn it prior to choosing between A and B, by simply clicking a button labeled “reveal game”. Learning is thus costless and effortless, yet Dana et al. (2007) find that only 56% of dictators click on the button to reveal the outcomes for the recipient. Moreover, 87% of those who do not click choose Option A, which maximizes their own payoff.

These results pose a significant challenge to the existence of social preferences, which is the standard explanation for why most subjects in Dictator games share fixed endowments, or maximize the sum of payoffs, as is the case here in State *Unaligned*. Indeed, the prediction for agents who really value \$4 for the recipient at least as much as \$1 for themselves is clear: always press the button and learn about the outcomes. As learning comes at no cost, even self-interested agents are at least indifferent between learning and not learning.

In contrast, a self-image explanation can explain the simultaneous propensity to give under full information about outcomes and the avoidance of such information. First, it could be that subjects are risk-averse with respect to self-image and do not want to endanger a relatively high prior by finding out more about their generosity (*ex-ante* information avoidance). More likely, many already have some insight as to how they would feel if confronted with the *Unaligned* condition, which they were shown in the explanation phase of the experiment, and is a fairly simple choice to project oneself into. As in our earlier charity example, in this case it is predominantly individuals with low altruism who choose to remain ignorant, so as not to be explicitly (and memorably) confronted with having to sacrifice either utility from

¹⁴See Engel (2011) for a meta-analysis, and Barmettler et al. (2012) for a demonstration that dictator game giving remains even under double-blind conditions.

money or utility from self-esteem. For the more altruistic individuals, on the contrary, there is only a potential gain in utility on the monetary side (they would happily choose Option B), so they would always want to know. In line with this *ex-post* ignorance interpretation, the vast majority of those who did not click choose Option A, which also means that such a choice is, statistically, a sign of selfishness.

3.1.2 Subsequent literature

The basic setup and results of Dana et al. (2007) have been replicated and extended many times. This is important, as the initial experiment had a relatively low sample size – 32 dictators made the information choice and only 19 faced the choice in *State Aligned* without any uncertainty. In a meta-analysis, Vu et al. (2023) review decisions made by 6,531 participants across 22 studies. On average, they find that 40% of subjects avoid information about the consequences of their actions for others, then predominantly pursue their self-interest. The pattern thus appears to be very robust. However, the original design left room for other explanations than “willful blindness” due to image concerns. Several subsequent papers therefore extended it to provide more stringent tests of the mechanism.

In the original experiment, dictators make their decisions anonymously but the experimenter can still link their choices back to them when handing out the payment, which may trigger social-image concerns. In an important replication, Larson and Capra (2009) therefore implement the moral wiggle room game in a double-blind setting. They find very similar results, with in total 53% of participants choosing to avoid the information.

Feiler (2014) also expand on the design by adding a within-subject approach. The author replicates the finding that a significant fraction of individuals avoid information in a self-serving way, and, importantly, this is true even for those who choose the prosocial action when it is not possible to remain uninformed. Matthey and Regner (2011) similarly investigate information aversion in repeated decisions, and find that a significant number of subjects who show other-regarding behavior when payoffs are known prefer to remain ignorant when given the opportunity.

While these results are very consistent with a strategy of self-image preservation, they

do not yet fully prove that they are caused by it. For instance, dictators may be inattentive or confused by the setup, causing random choices that leads them to remain uniformed. Indeed, even though a dictator game choice is a very simple, non-strategic decision, Koppel et al. (2025) show that 22% of subjects misunderstand important aspects of the game. Therefore, Exley and Kessler (2023) design a clever experiment to directly assess the role of self-image in driving information avoidance in the moral wiggle room game. They add to the original setup a control condition that changes one part of the consequences of both Options A and B: it is now a third participant who receives the payoff that in the original setup went to the dictator. All other features of the design – the consequences for the recipient, the information choice, and the timing of information provision – are kept unchanged. Inattention or confusion would therefore lead to similar fractions of subjects not revealing payoffs in this control condition and in the original one. Self-image, in contrast, predicts information avoidance only in the latter: absent consequences for the dictator, choices are unrelated to their selfishness or generosity. First, replicating once again the original paper, Exley and Kessler (2023) find, across multiple experiments, that between 62% and 73% of subjects avoid the information, whereas in the known *State Aligned*, between 61% and 68% choose the altruistic Option A. Importantly, they find significantly lower rates of information avoidance in the control condition, as predicted. The share does not drop to zero, however, indicating that image concerns do not fully explain the avoidance and that other motives are also at work. Dividing the fraction of subjects avoiding information in the control condition by the fraction avoiding it in the original game, the authors conclude that self-image concerns drive about 19% to 34% of aversion choices.

Another way of testing the robustness of identity-protecting willful ignorance is to give subjects the opportunity to avoid payoff information not only about the recipient, but instead about their own, or about both. This allows distinguishing self-serving information avoidance from pro-social information avoidance and general information avoidance. Self-image concerns would predict willful ignorance only in the first of the three cases. Accordingly, Momsen and Ohndorf (2023) give Dictators the option to avoid all payoff information, while Kandul and Ritov (2017) and Moradi (2018) also give them the option to avoid in-

formation about their own payoff. In all three experiments, the authors find substantially lower rates of information avoidance when the information is about own or both payoffs than about the recipient's.

Another line of work investigates in what settings information avoidance is more or less likely to emerge, and in particular, whether it is sensitive to tradeoffs, as predicted by self-image theories. Grossman (2014) thus expands the original design to three conditions. The first reproduces the original setting. In the second, subjects must actively choose (click) whether or not to learn, and in the third, they have to actively choose not to learn. He finds that, relative to the original setting, information avoidance is significantly lower in the second condition and almost entirely vanishes in the third one. The fact that defaults matter greatly for information avoidance is quite consistent with it being driven by self-image concerns: it is much more cognitively costly (greater dissonance) to uphold the image of being altruistic when one has just actively decided against learning payoff-relevant information about another person, compared to passively letting it happen.

Relatedly, Serra-Garcia and Szech (2022) study how information avoidance responds to incentives. As paradigm, they use a game where subjects choose whether to open an envelope that, with equal probability, contains a \$10 donation to a charitable cause or is empty. After deciding whether to open it, subjects choose whether to receive money for themselves (on the order of \$2.50) or donate the envelope's content. Between subjects, the authors vary from negative to positive an extra payoff that subjects receive for opening the envelope. Replicating earlier work, they find substantial information avoidance at the zero-payoff point—slightly less than 50% of subjects do not open the envelope. More importantly, they find a well-behaved, downward-sloping demand curve for information. When not opening the envelope involves a cost of \$0.10 the fraction not opening is (still) about 30%, and when it is opening that costs \$0.10, the proportion rises to about 70%.

Self-serving information avoidance has also been studied in settings other than the dictator game. For instance, Conrads and Irlenbusch (2013) design an ultimatum game in which the proposer can choose to remain ignorant of the proposed split that will result from their two choice options. They find that a significant fraction of proposers choose to remain igno-

rant, and then predominantly select the self-serving option. Epperson and Gerster (2024) study avoidance of information about farming practices, and subsequent meat consumption choices. They find that when information can be acquired at no cost, a significant fraction of participants not to receive it. Momsen and Ohndorf (2020) study this behavior in a market setting. Subjects purchase products with externalities and can learn about the nature of these negative spillovers. When information is costless, the authors do not find information avoidance, but it starts appearing as soon as revelation involves a trivial cost (€0.02), which most likely serves as an excuse.

3.1.3 Avoidance of prosocial decisions

Besides avoiding external information that could guide prosocial or other identity-relevant choices, people often avoid situations altogether where they might face such a decision, even under anonymity.

In Lazear et al. (2012), subjects can either play a standard dictator game where they have $\$y$ to share with another subject, or stay out, in which case they receive $\$x < \y and the other subject nothing. The authors find that a significant fraction of participants prefer the latter option, even though when subjects are forced to make the dictator decision, the overwhelming majority give a non-zero amount, replicating standard results.

As with information avoidance, to which it closely relates, as mentioned in Section 2, this behavior again poses a challenge to both standard economic theory and models of social preference. A fully selfish agent would enter and allocate all of y to themselves. One with any degree of altruism (or other fairness preferences, such as inequality aversion) would similarly enter, so as to choose their preferred division of $y > x$. In contrast, agents with self-image concerns anticipate that they would or might feel compelled to give (or give more than they would really like) in order not to display obvious selfishness, and thus prefer to avoid the “test” of playing the game, as a cheaper way of preserving a positive self-view.¹⁵

Using a natural field experiment, Adena and Huck (2020) provide evidence for self-

¹⁵An alternative account of such “crossing the street to avoid walking by a beggar” strategies are as commitment devices for an agent who does not want to give but fears succumbing to a temptation to do so (Dillenberger and Sadowski, 2012). The natural and common explanation for the psychological origin of this temptation is the shame that one would feel from behaving selfishly – a case of negative self-image.

serving decision avoidance in an online fundraising campaign. While booking tickets for the opera, customers are asked whether they would like to donate to help disadvantaged schoolchildren. In one condition, they can continue booking without a donation only after ticking either a box saying “I have donated already” or a box saying “No, thank you”. In the other condition, they can proceed without ticking any box. The authors find that this seemingly small change significantly decreases donations. Intuitively, lying by declaring to have donated before, or explicitly declaring one’s selfishness, induces a hit to self-image and makes it hard to forget later on that one chose not to contribute. Not having to declare one’s intention helps to maintain positive beliefs about oneself, by later conveniently “overlooking” or forgetting that there was a fundraising call. As a result, self-image-motivated customers feel less compelled to donate in that case. Importantly, social image cannot be at play here, since the opera house observes the actual donation decision in either case.¹⁶

“Avoiding the ask” has been observed in many other fundraisers. DellaVigna et al. (2012) show that many people choose not to be at home when fundraisers have announced that they will visit them at a specific time to ask for donations. Similarly, Andreoni et al. (2017) show that people choose a different route of exit at a supermarket to avoid being asked to donate to a good cause. Knutsson et al. (2013), Cain et al. (2014), Trachtman et al. (2015), and Damgaard and Gravert (2018) provide further evidence on people avoiding being asked or reminded of prosocial decisions. While these situations feature (sometimes minimal) social interactions and thus potentially social pressure, self-image may also contribute to the observed behaviors.

3.2 Motivated belief updating

Very often, there is no way to avoid identity-relevant information, or choice situations that will generate such signals. Examples include personal successes and failures, feedback from

¹⁶In Dana et al. (2006), both self and social image may be at play. Subjects first choose a potential dictator allocation over \$10, then decide between having it implemented or receiving \$9. In the latter case, the receiver will never know that the game was played, but in the former, they will know and see the allocation. Thus, while self-image is most likely at play here again (having exited may be less memorable than having implemented a selfish split), choosing the “quiet exit” option, which about 28% of subjects do, also frees the dictator from any judgment by the receiver. The same is true for Broberg et al. (2007), who use a similar design but elicit subjects’ willingness to pay for “erasing” their initial allocation decision. Overall, 64% of them are willing to exit for less than their endowment as dictators.

or treatment by one's ingroup or partners, performance reviews, or ethically charged product labels. In such cases, individuals who want to maintain a certain identity may distort *ex post* the signals received or their interpretation, and hence their belief updating, through various forms of *motivated reasoning* (Kunda, 1990; Epley and Gilovich, 2016).

3.2.1 Experimental paradigm

An often-used paradigm in the literature uses stylized updating tasks where subjects receive information about their IQ. Both their priors about their relative rankings and their posteriors following the signal(s) are elicited, allowing precise identification and quantification of updating behavior. Information about intelligence is particularly suitable because (i) a proxy for it can easily be elicited during the time frame of an experiment, (ii) intelligence scores are comparable, and (iii) it is highly self-relevant, being both socially valued and relevant to many educational and professional domains.

Two influential experiments employing this design are Eil and Rao (2011) and Möbius et al. (2022). The paradigm has four essential parts. First, subjects perform an IQ test. Afterwards, they are put in a comparison group with other subjects and asked to state their belief about how they rank within their group in terms of IQ performance (prior). Third, they receive repeated signals that are informative about their relative rank, but are not fully revealing. After each one, they are asked, with incentives for accuracy, about their posterior belief in their rank among the group. In a control condition, subjects receive signals that are computationally equivalent to the signals about subjects' IQ, but pertain to some arbitrarily assigned ranking.

Within this paradigm, the two papers and subsequent literature differ slightly in implementation details. In Eil and Rao (2011), subjects form groups of ten and receive three signals (without replacement) about whether they rank higher or lower than another group member. Prior to receiving any signal and then after each one, subjects are asked to state their full belief distribution over the ranks. Beliefs are incentivized using a quadratic scoring rule. In Möbius et al. (2022), subjects receive four signals about whether they rank above or below the median among all subjects. They know that each signal is only correct with a 75%

probability, which has the attractive feature that it induces exogenous variation in the information that subjects receive.¹⁷ Prior to and after receiving each signal, subjects state their subjective likelihood of actually having an above-median score on the IQ test. Their guess is incentivized by eliciting the value of x for which they are indifferent between receiving a prize with probability x and receiving the prize if their score was above the median. In the control condition, subjects in Eil and Rao (2011) update about their rank in a meaningless “card task”, while in Möbius et al. (2022) they update about the performance of a “robot” rather than their own performance.

Both papers observe a strong asymmetry in updating to positive versus negative news about relative IQ performance. Subjects tend to update in a fairly Bayesian fashion in the first case, but show significant unresponsiveness in the second. Importantly, this asymmetry is absent in the control condition. The violations of Bayes’ rule in updating about IQ therefore cannot be driven by differences in processing or perceiving negative relative to positive news *per se*. Möbius et al. (2022) further show that the resulting upward-distorted beliefs causally induce a higher propensity to compete in a tournament rather than work for a piece rate.

Both papers also elicit subjects’ willingness to pay to perfectly reveal their rank after the updating rounds. A significant fraction is willing to forgo money to not receive such information. In particular, subjects in Eil and Rao (2011) who came to believe they were among the highest IQ performers are willing to give up part of their earnings to learn their true rank, whereas those who believed they were among the bottom require a subsidy to receive the information. As predicted by the theory, motivated reasoning and information avoidance go hand in hand, being two strategies for self-esteem management.

3.2.2 Subsequent literature

In a similar vein, Bolte and Fan (2023) show that subjects neglect more strongly the fact that information on their relative IQ rank comes from the same source if the news is positive compared to negative – they exhibit self-serving correlation neglect. Again, this pattern is significantly less pronounced when the news is not ego-relevant.

¹⁷In particular, the random variation is orthogonal to subjects’ performance in the IQ-test, which may be correlated with updating behavior.

A similar asymmetric effect occurs in the context of disclosure games, as Hagenbach and Saucet (2025) show. In their experiment, senders who have private information about a receiver's IQ but also an incentive to deceive them disclose (or not) their information strategically. The key finding is that, in the absence of full disclosure, receivers display less skepticism when being skeptical leads to self-threatening beliefs than when it leads to self-serving beliefs. When the information is not ego-relevant, no such asymmetry is present. The authors further show that the results on IQ are well explained by receivers carrying either more or fewer steps of iterative reasoning (elimination of dominated strategies), depending on whether these steps take them in an ego-boosting or ego-damaging direction.

In line with the predictions of the self-esteem and/or anticipatory-utility version of the theory, asymmetric updating appears to be sensitive to the delay until uncertainty resolution (or the lack thereof). As Drobner (2022) shows, the pattern of asymmetric updating is stronger when participants do not expect to eventually be told of their relative IQ than when they know it will be. This helps explain the sometimes mixed evidence on asymmetric updating. For instance, Coutts (2019) conduct an experiment in which subjects know that they will learn the truth at the end, and finds no evidence that they respond more to positive news than negative ones. From a self-image perspective, this is in fact expected, as the anticipation of full revelation reduces almost to zero the period during which favorably distorted beliefs could be “savored”. Further supporting the self-image model, Drobner and Goerg (2024) provide evidence that, when subjects expect no resolution of uncertainty (but not when they do), they interpret signals received in a self-serving way, judging IQ as more or less relevant to study and job performance depending on whether these signals were favorable or unfavorable.¹⁸

Buser et al. (2018) investigate individual heterogeneity in the degree to which subjects display asymmetric updating. They enrich the design of Möbius et al. (2022) by having subjects take three different IQ tests and examining how they update in each case. This allows

¹⁸In the financial domain, Barron (2021) finds no good-news/bad-news asymmetry in subjects' updating to exogenous signals about the composition of an urn that will determine their payoff. Gödker et al. (2025) find asymmetric recall of past returns to an asset when it has been chosen by the subject, resulting in overconfidence about their investing ability, but not when the asset has been exogenously assigned to them. Together, these results point to self-image rather than anticipatory utility as the source of motivated beliefs in these settings.

the authors to investigate whether asymmetric updating about ego-relevant information can be considered a relatively stable individual trait. They do not find significant correlations across tasks, indicating that such behavior may be specific to the decision context. Thaler (2021) finds that men engage in asymmetric updating about ability (answering general-knowledge questions) much more than women, which helps explain their well-known overconfidence. For information relevant to political identity, in contrast, both genders engage equally in partisan-motivated updating.

González-Jiménez (2022) shows that, even when status within a group is assigned independently of ability (IQ test), subjects condition upon it in a self-serving manner when updating to a series of signals about their ability. Specifically, low-ability subjects who were assigned to high status achieved the same final levels of self-confidence and subsequent task performance as high-ability subjects (of any status), exceeding those of their low-status counterparts. Furthermore, these motivated beliefs were sustained by accessing less frequently than other participants the feedback periodically offered about performance in each round.

Several papers have investigated the role of motivated belief updating in domains other than intelligence.¹⁹ In Eil and Rao (2011), in addition to IQ, the experiment also contains a treatment where subjects do a speed-dating exercise and are subsequently rated on their attractiveness. They then receive signals about their attractiveness ranking in their group, and show asymmetric updating as in the case of intelligence.

In the moral domain, Konow (2000) shows that stated judgments about what is a fair allocation differ when a subject chooses selfishly as a dictator and when they judge sharing between two other subjects. While these statements are not incentivized, they are anonymous, and the author proposes dissonance reduction as the intervening mechanism. Heese and Chen (2025) offer subjects information about whether a profitable decision harms a receiver in a dictator game. The authors find that subjects selectively “fish for good news”: they stop earlier if the available news indicates that their action does not harm the receiver than when it indicates harm. This motivated depth of information search parallels the motivated depth of iterative reasoning in Hagenbach and Saucet (2025).

¹⁹See also Sharot and Garrett (2016) for an overview of the evidence of the good news/bad news asymmetry in psychology and neuroscience.

In Gneezy et al. (2020), who build on the design of Babcock et al. (1995), participants act as financial advisors recommending investments to clients, with one option (A) offering a commission but yielding lower returns for the client. When advisers learn about the incentive before evaluating the investments, they are significantly more likely to recommend the self-serving option than when they learn only afterwards, as long as the risk structure of the assets' returns allows some scope for rationalization and self-deception. Revealing further evidence of motivated beliefs, in those conditions the advisers are also more likely to choose investment A for themselves when informed of the incentive prior to evaluating the assets.

Bosch-Rosa et al. (2024) study motivated beliefs in the context of investors with moral hazard and limited liability. Limited liability naturally encourages investors (managers, banks, etc.) to take more risk at others' expense (shareholders, the state for bailouts), but doing so can make it more difficult to maintain a positive self-image. To resolve the tradeoff in a self-serving way, investors may hold motivated beliefs that the risk of losses is low. Indeed, Bosch-Rosa et al. (2024) find that, holding signal strength about loss risk constant, for the same signal, investors state higher (incentivized) likelihoods of project success under limited liability when it leads to loss sharing than under either full liability, or limited liability without loss externalities. At the same time, they invest more in the risky asset, and the authors estimate that one third of the increase is due to motivated optimism, which thus acts as a “multiplier” of the standard incentive effect. The fact that there is no significant distortion when there are no potential adverse consequences also allows the authors to attribute the belief distortion to self-image concerns rather than to anticipatory utility about payoffs.

In a separate experiment, both the losses and the gains from investments are shared with others. On average across all subjects, the authors find no differences in beliefs between limited and full liability. They do, however, find evidence of motivated beliefs among those who showed concern for others by previously giving a positive amount in a dictator game. The self-image perspective can rationalize this heterogeneity: a person who fully knows that they are selfish or has no self-image concern, hence no incentive to distort beliefs. In contrast, those who want to signal to themselves that they are altruistic will both give in the

dictator game and distort their beliefs in the investment game.

Thaler (2024) provides evidence of motivated updating in the political domain, which involves not ignoring relevant information, but conditioning on irrelevant information. Participants first report their median belief x about some factual number x^* , meaning that they think it is equally likely that x^* is above or below x . They then receive a message from a source that, with equal probabilities is always “truthful” or always “fake” (lying), and stating whether x^* is greater or smaller than x . Finally, their posterior beliefs about the reliability of the source and the value of x^* are elicited. For a Bayesian, the message is completely informative, so posteriors should equal priors, and this is indeed what occurs when x^* is a neutral number, about geography. In contrast, updating is clearly non-Bayesian and identity-motivated when the topic is politically loaded: crime rate under different presidents, evolution of the homicide rate after changes gun legislation, or of social mobility after tax cuts, women’s math performance relative to men’s, extent of climate change or racial discrimination in the labor market, etc. In these cases, people who “lean” Republican (or similarly, Democrat), and especially those affiliated with the party, systematically distrust sources sending an “Anti-Party” message (inimical to their political beliefs) and trust those sending a “Pro-Party” one. This motivated updating, in turn, reinforces their initial beliefs –posteriors are more extreme than priors– and thus increases political polarization.

As mentioned in Section 2, besides affective reasons such as pure self-esteem and anticipatory utility, people may hold motivated beliefs about themselves and the consequences of their actions ((θ, e) in the model outlined earlier) for instrumental reasons.

The first one is that certain beliefs are more conducive to effort and perseverance, either because they help overcome temptations (the Protestant work ethic being an example), or because they make it more compatible with certain valued identities. In Chen and Schildberg-Hörisch (2019), participants perform a real-effort “slider” task, then report their belief distribution over their productivity. Overconfident individuals consistently exert more effort in subsequent rounds. Conversely, when they receive debiasing feedback, their effort declines significantly. Bönisch et al. (2024) explicitly test a version of the Bénabou and Tirole (2002) model, in which belief distortions help increase effort motivation in the face

of a self-control problem. Drawing on a large dynamic student survey, the authors collect repeated measures of students' expectations about how much studying will improve their exam performance, then test the prediction that optimism about the value of effort should peak just ahead of exams. Students' average believed returns to effort increase by about 20% as exams approach, then drop off sharply afterwards. By controlling for ability, historical effort, and external signals, the analysis rules out information acquisition or changing actual returns as explanations for these shifts, pointing instead to the self-motivation role of belief distortions.

In a rare study of how sustaining a religious identity induces motivated beliefs, Wang et al. (2023) take advantage of a year in which the very high-stakes Chinese national exam falls during the Ramadan period. A sample of Muslim students in China preparing for the exam are presented with a graph clearly showing that fasting significantly impairs test performance. When asked to simply read off the graph the magnitude of the effect, subjects underestimate it by a large amount, even though their answers are incentivized and the information is right in front of their eyes. In contrast, for another sample who were previously given writings by Muslim clerics who used Quranic reasoning to explain that pausing the fast during exams is religiously permissible, underestimations occur half as often.

A second functional reason for inflated self-image is that persuading oneself helps persuade others, a mechanism that Hoppel and Trivers (2011) argue conferred evolutionary advantages. Schwardmann and Van Der Weele (2019) and Soldà et al. (2022) provide causal evidence of such strategic self-deception. In both experiments, participants complete a task and estimate their relative performance. Some are informed beforehand that they will have to persuade another person of their ability, others learn this only after (incentivized) beliefs are elicited. In both studies, participants anticipating a need for persuasion form more optimistic beliefs about their performance, and these inflated beliefs indeed make them more persuasive in a face-to-face interaction. Soldà et al. (2022) also show that, as a mechanism for arriving at inflated beliefs, participants anticipating persuasion choose feedback signals that are more likely to be positive than negative (how well they answered easy rather than hard questions) and, here again, under-update to negative signals.

Finally, given the relevance of motivated updating, an important question concerns the extent to which people anticipate that they will self-servingly distort their beliefs, a form of metacognition previously discussed in Section 2. In this case, they may engage in ex-ante behavior that either limits or enhances the scope for motivated thinking. To investigate this question, Saccardo and Serra-Garcia (2023) design an experiment in which subjects take the role of advisors, recommending products to uninformed receivers. The advisors can choose whether to first see the incentives they receive for their recommendation, which enables motivated reasoning, or the quality of the product, which does not. They find that people are quite heterogeneous in their cognitive strategies, with half choosing to see the incentive first and half the quality. Importantly, actively enabling motivated reasoning does not impede engaging in it, as advisors choosing to receive the incentive first indeed make more self-serving recommendations. Once again, self-deception proves effective in enhancing self-image.

3.3 Motivated memory

Memory is central to the very notion of identity, as it underlies both the fundamental sense that we remain the same person throughout life and what we learn over time about this person.²⁰ Human memory, however, is inherently imperfect; the process through which experiences are encoded, stored, and later retrieved is subject to substantial information loss, uncertainty, and ambiguity. These frictions provide “cover” for a self-image motivated agent to shade their memories in an identity-enhancing direction, and these memory distortions in turn influence later decisions –for instance, by inducing overconfidence. A student or employee may thus recall more easily their successes than their failures, a religious person their good deeds and adherence to precepts than their lapses, a group member their adherence to its norms than their straying from them, etc. For an individual without self-image concerns, in contrast, memory may be imperfect, but errors in both directions would be equally likely.

Following both psychological insights and economic models formalizing the determinants and consequences of motivated recall (Bénabou and Tirole, 2002, 2004, 2011; Ha-

²⁰“For, since consciousness always accompanies thinking, and ’tis that which makes every one to be what he calls self, and thereby distinguishes himself from all other thinking things: in this alone consists personal identity, i.e., the sameness of a rational being; and as far as this consciousness can be extended backwards to any past action or thought, so far reaches the identity of that person.” — Locke (1975).

genbach and Koessler, 2022; Fudenberg et al., 2024), a number of recent studies have investigated the phenomenon both in the lab and in the field. Amelio and Zimmermann (2023) provide a recent review, so here we focus on explaining the core experimental paradigm, its gradual extensions, and some recent applications,

Before doing so, let us note that *some form of motivated attention or memory is necessarily involved* in motivated belief updating and all other identity-protective strategies we discussed earlier, except for the relatively rare case of completely *ex-ante* information aversion. For example, consider a selfish agent who, in order to preserve a positive self-image, avoids information or a choice situation, or when faced with a decision, overrules their selfish desires and chooses altruistically. Equivalently, consider a weak-willed agent who, for self-image preservation, avoids potential information sources (temptations) or acts like a disciplined individual would in the same circumstances. For this to affect beliefs, it must be that their first impulse (deep preference) and the real reason they acted the way they did are subsequently no longer perfectly accessible in memory or awareness.

3.3.1 Experimental paradigm

Zimmermann (2020) builds on the classical paradigm of motivated belief updating and adds a recall stage, together with several novel treatments. Subjects take an IQ test, then receive a noisy signal about their relative rank in a group. As usual, noisiness enables causal identification of the effect of the signals' valence (positive/negative). Importantly, the timing of posterior elicitation was randomly varied between immediately after the signal and one month later. In the first case, subjects update in a rational manner: positive signals increase beliefs in a high rank, while negative signals decrease beliefs. After one month's delay, however, subjects who had received a negative signal barely lower their posterior belief, again violating Bayes' rule, while those who had received positive signals still show strong increases.

In a second experiment, the author demonstrates the role of motivated memory as a mechanism in generating this temporal good news-bad news effect: after one month, recall of the signal and even of the IQ part of the experiment itself is significantly lower when

the feedback was negative than when it was positive. This raises the question of whether the asymmetry occurs at the encoding or the retrieval-and-decoding stage of the memory process. Zimmermann (2020) provides evidence for both mechanisms.

First, to provide evidence for motivated encoding, before receiving the signal, subjects are informed about the incentivized posterior elicitation that will happen a month later, creating an incentive to store the signal for future recall. The announcement indeed significantly increases updating from negative signals one month later, while having no effect on updating from positive signals.

Second, to provide evidence for motivated decoding, no announcement takes place, but the unexpected incentives for subjects to correctly state their rank are increased tenfold. This again has no effect on updating from positive signals after one month, but significantly improves the updating from negative signals. The fact that both treatments only show effects for negative signals provides clear evidence of motivated recall: subjects are already encoding and decoding close to their capacity level for positive signals, so external manipulations have no effect. For negative signals, however, the tradeoff between incentives for accurate recall and maintaining a positive self-image leads manipulations to have significant, predictable effects.

In a similar vein, Chew et al. (2020) test subjects' incentivized recall, after several months, of their performance on an IQ test. Participants first solve four Raven's matrices, then several months later they are shown those same questions plus two others, together with the solutions, and asked whether they got the question right, wrong, did not see it, or cannot remember. In addition to forgetting failures more than successes ("positive amnesia"), subjects also tend to misremember failures as successes ("confabulation") and even to say they solved correctly questions they never saw ("delusion").

3.3.2 Subsequent literature

Moving the literature from the lab to the field, Huffman et al. (2022) investigate the role of biased recall in explaining why overconfidence persists among managers even when they receive repeated, public feedback. The study focuses on about 230 store managers in a firm,

for whom a significant fraction of pay is determined by their rank in quarterly performance tournaments. Rankings are computed according to well-defined, transparent criteria and communicated as part of quarterly performance evaluations. The authors elicit both managers' predictions of their future rank (Q4 2015) and their recollection of past rank (Q2 2015). Since the experimenters are known to have that data, there is no point in lying, and incentives are given for accuracy.

The first result is that nearly half of the managers exhibit overconfidence, predicting better-than-justified future ranks by about 0.5 quintiles on average. This holds whether predictions are compared to ex-post realizations, to reduced-form forecasts based on the performance record, or to a structural Bayesian-learning model. The second key result brings to light the role of systematically biased memory: managers who underperformed tend to misremember their past rank as significantly better, with average errors exceeding 30 places, while top performers recall their rank much more accurately. Approximately 56% of managers exhibit positively skewed recall errors, versus just 24% for negative ones. Furthermore, these distorted memories strongly correlate with inflated predictions: a one-standard-deviation increase in recalled rank corresponds to a half-quintile increase in predicted future rank. A structural model incorporating self-serving recall provides a good fit to the data, outperforming Bayesian models that include both public (evaluation) and private signals.

Using a similar design and data from the Kenya Life Panel Survey, Müller (2022) examines whether parents reconstruct their memories of past fertility preferences to rationalize their current family outcomes. In one round of the survey (2007–09), participants were asked about their desired total family size. In a later round, about ten years later (2018–2021), the number of children to date is observed, and parents are incentivized to recall their earlier stated preference. Among the 1,428 respondents, about 29% already have “excess fertility” by that time, namely, more living children than they had originally reported wanting. Crucially, recall errors are strongly associated with current fertility outcomes: individuals with excess fertility are over 25 percentage points more likely to overstate their past preferences and desires (by one child on average), compared to those with no excess fertility. The degree of misremembering increases with the number of “excess” children and

the time elapsed since the undesired birth. Furthering the case for motivated forgetting rather than cognitive limits, monetary incentives for recall have little effect (whereas they work for another “neutral” question), and respondents with excess fertility are significantly less likely to take up an offer to see their past answer, despite a financial incentive to do so (information avoidance).

Thus, as predicted by theories of self-justification and identity protection, individuals adjust their recollections of major life preferences to rationalize outcomes that would otherwise be dissonant, thereby maintaining a coherent and affirming narrative about themselves. Importantly, these biased memories influence future behavior: individuals who recall having wanted more children than they actually did are 10 percentage points more likely to recommend high fertility norms (e.g., 5 or more children) to adolescents.

In Hagenbach et al. (2025), subjects first receive a signal with a stated level of informativeness about their IQ performance. Two days later, they are reminded of the signal and, for some but not others, of its informativeness; they also state their posterior beliefs about IQ. Once again, recall is self-serving: those with negative news report significantly lower informativeness when there is no reminder of its true level than when there is, whereas those with positive news display no such difference. Furthermore, absent the reminder but not with it, subjects with negative news manage to maintain excessively high beliefs about their IQ. Similarly, in a condition where the nominal message is negatively correlated with the truth, subjects tend to inflate the informativeness of positive messages that should now be interpreted as negative ones.

As is the case for updating, the effects of motivated memory are not limited to the IQ domain. In the context of prosocial decisions, Carlson et al. (2020) provide evidence that subjects recall a higher degree of giving in dictator games than actually occurred, whereas if a computer randomly makes choices for them, their recall is no longer biased. Saucet and Villevall (2019) similarly show that subjects have a higher recall accuracy when they picked the fair option, and that this effect goes away if a computer randomly selected it. Thus, in both cases, once a threat to people’s self-image is removed, they have no difficulty remembering outcomes that maximize their payoff.

In a multi-country study on attitudes relating to the COVID-19 crisis, Sprengholz et al. (2023) show that people surveyed in 2022 adjusted, in the direction of their current perceptions, their recall of past (2020) stated perceptions of risk (infection probability and severity), trust in government and science, frequency of wearing masks and perceived official exaggeration of the pandemic measures. Furthermore, the direction of the bias also differed according to current vaccination status and identification with that status.

Also in the field, Roy-Chowdhury (2022) studies longitudinal data on schoolchildren who are asked to recall their math grades. They find that students, especially low-performing ones, tend to remember their grades as better than they actually were. These memory distortions grow with time since the original grade, and they predict inflated beliefs about academic ability in future periods, controlling for actual performance.

Sial et al. (2024) ask participants to recall their gym attendance and find that over 70% overestimate it. Using past attendance as an instrument, they further show that these memory distortions induce optimistic beliefs about one's willpower and a lower demand for commitment devices.

In Gödker et al. (2025), subjects repeatedly invest in either a safe or a risky asset. The authors find that positive returns are over-remembered and negative returns under-remembered. Using random variation in the delay before recall, they further show that these distorted memories cause overestimations in the risky asset's return and own investment ability, together with excessive reinvestment and risk taking.

In Van Der Weele and Von Siemens (2020), subjects make a donation decision and subsequently receive a bracelet. In the treatment condition, they receive a bonus if they return two weeks later and present the intact bracelet, while in the control they receive it just for coming back. As the bracelet likely serves as a reminder of the donation decision and thus potentially increases its signaling value, anticipating this effect may lead subjects to act less selfishly. However, the authors find no significant difference in behavior, and thus no evidence of self-signaling. A second experiment, in which subjects engage in a push-up competition, suggests that motivated memories and rationalizations of past actions (a_2) can reduce the effectiveness of such reminders, as can be seen from Figure 1. Depending on

whether participants learned that they performed well or poorly relative to others, they later on altered in a self-serving direction their stated diagnosticity of push-ups for fitness, the importance of fitness for their self-image, and motivations for entering the contest.

3.4 Self-signaling

As illustrated in Figure 1, an individual whose introspection or recall of their true values (θ) is unreliable will use their previous choices (a_2) as evidence about them. Anticipating this revealed-preference inference, they may choose these actions so as to affect their future beliefs about their type. Such self-signaling can serve three main purposes, corresponding to those enunciated in Section 2.²¹ First, by taking actions consistent with a valued identity, such as prosociality, or conversely avoiding those that would be too obviously dissonant, the agent can maintain and enhance this source of self-esteem. Second, by making investments that are complementary to some identity-relevant capital they have (A_0 : e.g., career, ingroup ties, culture, religion, etc.) they can raise the anticipatory utility derived from that identity. Finally, because having invested in some activity is taken as a sign that it is aligned with one's preferences and interests, it leads to further investment in the next round, which can in turn further strengthen the relevant identity, and so on. Such escalating commitments can be welfare-decreasing "identity treadmills" when they end up being wasteful (self-signaling on average, but for an agent with a self-control problem, they can serve to induce greater perseverance by their future selves, and thus be beneficial. In what follows, we provide empirical examples for each case.

As noted earlier, a question that naturally arises in the paradigm of Dana et al. (2007) and subsequent information-aversion experiments is why choosing ignorance does not reveal the agent as selfish, in which case it would be self-defeating. Indeed, a truly altruistic person would always want to know, and conversely, subjects who do avoid information almost always behave according to self-interest afterwards, so remaining uninformed is indeed a signal.

A first reason may be that people succeed in avoiding thinking through, or manage to

²¹For details and formal results, see Bénabou and Tirole (2011).

forget, these relatively sophisticated metacognitive inferences about their motives. Another one is formalized by Grossman and Van Der Weele (2017), who extend the self-signaling model to allow for a continuum of generosity types. They show that there exists a semi-separating equilibrium in which choosing ignorance indeed lowers self-image but, for a range of relatively ungenerous agents, not enough to justify taking the risk of learning that the state is *Unaligned* and being confronted with either acting prosocially or having self-image fall to its lowest possible level.

In a very different setting, Bursztyn et al. (2020) conducted field experiments with Pakistani men, both in a lab and at home. Respondents are offered a bonus payment of about 20% of their daily wage if they anonymously check a box expressing gratitude toward the U.S. government, which funded the experiments. Between 25% and 33% of them refuse the payment—a costly self-signal of having the “right” political identity. Similarly, Bénabou et al. (2024) finds that 40% of a sample of German university students refuse to anonymously click on a statement saying “I support the destruction of the environment,” even though they fully understand that the sole consequence would be to trigger a donation of €15 to a charity for children with cancer, whereas clicking on “I support the preservation and protection of the environment” yields nothing for this or any other cause.

In a large online field experiment in China, Dubé et al. (2017) test another prediction of the self-signaling model, namely the crowding out of motivation by extrinsic incentives, even in private decisions. Randomized customers of a large cell phone provider are offered (via SMS) discounted movie tickets that, if purchased, will trigger a charitable donation by the company. For a fixed discount, the volume of purchases increases with the amount of the donation, and conversely, when there is no donation, it increases with the amount of the discount—both in line with standard demand theory. When the donation and the discount are bundled, however, varying the amount of the latter amounts to varying a monetary reward offered for a prosocial act (buying the ticket). As shown by Bénabou and Tirole (2006), this “overjustification effect” damages the prosocial image attached to the act, offsetting and potentially dominating the standard price-incentive effect of the discount. Since SMS solicitations and subsequent purchasing decisions are entirely anonymous, the image

at play here can only be self-image. The authors find that for relatively small donations, discounts increase demand, but for even moderate-sized ones they display a hump-shaped pattern, consistent with greater subsidies increasingly damaging the self-signal of prosociality attached to a purchase, as predicted by the theory. This mechanism is confirmed by a follow-up survey in which, at moderate donation levels, the fraction of subjects reporting “feeling good about myself” as a motivation to purchase declines with the level of the discount.²²

Gneezy et al. (2012) use three experiments in which subjects can “pay-what-you-want” to provide several types of evidence for self-image concerns. In the first one, informing consumers that half of the price they choose to pay for a good will go to a charity predictably increases the prices set by those who purchase, but reduces the fraction who do buy. This is a form of decision avoidance (how much to pay), related to the exit in dictator games discussed in Section 3.1. In two other experiments, respectively: (i) more consumers buy when the seller offers a discounted price relative to the usual one than when they can name their own; (ii) consumers choose to pay less when they must pay the seller directly than when purchases are anonymous. Both cases are instances of self-signaling. In the first one, paying an exogenously low price becomes uninformative about selfishness. In the second, being monitored increases social-image pressure, but this in turn crowds out the social-signaling value of the price decision.

A particularly striking type of escalating commitment is when the self-signaling action a_2 is pure money-burning. Hong et al. (2019) design a novel experiment to test the prediction discussed above that agents with both imperfect memory and imperfect self-control can use sunk costs to discipline their future choices. In a first stage, subjects are shown the success probabilities for 20 possible projects with random five-digit IDs, then choose for each one the level of some costly action that has no bearing on those returns. In a second, preannounced stage two weeks later, the treatment group is reminded only of their chosen sunk

²²Goette and Tripodi (2020) document another form of crowding out predicted by the model. When image concerns are heterogeneous, publicizing good deeds may backfire, as the act then becomes a stronger signal of image seeking rather than altruistic motivation. Studying repeated blood donors in Italy, they find that participants indeed make such inferences when public recognition is present, and that in this condition, total donations are lower than with a simple ask.

costs, while the control group is also reminded of all the success probabilities. Everyone's willingness to pay to "continue" each project is then elicited. In a third stage, another two weeks later, the projects are realized. The first delay ensures that the treatment group will have very imperfect recall of the 20 success probabilities, while the second one ensures that only sufficiently patient agents will reinvest. The authors find that many more subjects incur initial fixed costs, and at higher levels, in the treatment group, compared to the control group. Furthermore, the higher the success probability, the greater the sunk cost incurred and the higher the probability of reinvestment in the second stage, whereas these relationships are much weaker or insignificant in the control group. Finally, more present-biased treated subjects (as measured through a later, separate elicitation) choose sunk costs that are both higher and more strongly increasing in the success probabilities than their less hyperbolic counterparts, consistent with the prediction that they find costly self-signaling more valuable as a commitment device.

3.5 Preference for truth-telling

Another important form of self-signaling involves truth-telling. Absent repeated-game and reputational concerns, standard economic agents should always lie if it is to their advantage. However, a robust finding is that people frequently tell the truth even when it means foregoing some gains, and do so even in one-shot, anonymous experimental settings.²³

Self-image concerns naturally induce truth-telling, as honesty is universally considered a key component of moral character. Lying is condemned by most religions (Christianity, Islam, Buddhism), normative ethical theories (e.g., Kantian ethics), and in the perception of the general population. Accordingly, telling a lie even when it is undetectable by others is a threatening signal to one's identity as a good, moral person.

²³When lying is detectable, agents care about the signal it sends even in anonymous interactions, (Dufwenberg and Dufwenberg, 2018; Gneezy et al., 2018; Khalmetski and Sliwka, 2019).

3.5.1 Experimental paradigm

One of the most frequently used paradigms was introduced by Fischbacher and Föllmi-Heusi (2013). Subjects roll a physical six-sided die in private and report the result. Their payoff is increasing in the reported number, except for the number six, which results in a zero payoff. While lies are undetectable at the individual level, comparing aggregate reported numbers to the expected outcomes of a die reveals the average extent of lying behavior. Fischbacher and Föllmi-Heusi (2013) estimate that as much as 39% of subjects report honestly and only 22% maximize their income through lying.

A second frequently employed paradigm is a modified cheap-talk sender-receiver game, introduced by Gneezy (2005). A receiver chooses between two options, without knowing the monetary consequences. A sender knows which Option favors the receiver (say, A) and which one favors them (say, B). The sender chooses between two messages: one tells the receiver that Option A maximizes their payoff (the truth), the other that Option B maximizes their payoff (a lie). Gneezy (2005) finds that about 55% of senders choose the truthful message, even though it reduces their payoff. At the same time, subjects display a tradeoff between honesty and self-interest: the more they lose from telling the truth, the more they lie on average.

3.5.2 Subsequent literature

Truth-telling even in unobserved settings has been replicated many times using the paradigm of Fischbacher and Föllmi-Heusi (2013): under low and high incentives, when decisions are repeated, experiments take place online, or coins instead of dice are used, in student and representative populations, and across cultures around the world. A meta-analysis by Abeler et al. (2019) covering 90 experiments using the paradigm in 47 countries reveals that, on average, people forgo 38% of their maximal payment by refusing to lie. Direct lying costs, capturing self-image concerns, emerge as one of the principal components explaining the wealth of experimental data.

In the self-signaling model, the informational content of an action, namely what it indicates about the agent's character, depends on everyone's equilibrium play –an endogenous

social norm. In line with the theory, Le Maux et al. (2021) find that subjects' level of honesty in the die-rolling experiment is sensitive to information about how other participants behaved, even though individual choices are unobservable. These results all point to self-image being an important contributor to truth-telling behavior, with agents engaging in self-signaling (specifically, self-interested agents pooling with intrinsically honest ones) to preserve positive beliefs about what kind of person they are.

3.6 Excuses

Another important implication of self-image concerns is that it leads people to seize upon or even actively seek excuses that help sustain their motivated beliefs: in order to act selfishly and still maintain a positive self-image, some other rationalization for the action needs to be given.

The literature has documented a rich set of rationales that people use to excuse self-serving behavior. One, previously encountered in the section on information avoidance, is uncertainty or ambiguity: people use the risk that a prosocial action may not realize as an excuse not to choose it. In general, it is well-known that once prosocial actions become uncertain, prosocial behavior decreases, for instance in dictator games (Krawczyk and Le Lec, 2010; Brock et al., 2013; Freundt and Lange, 2017). Such behavior could simply reflect risk-aversion, however. To distinguish between the two, Exley (2016) conducts an experiment in which subjects choose between a certain payoff and a risky lottery that has a positive probability of paying nothing, under four conditions: (i) the certain payoff goes to them, whereas the lottery prize goes to a charity donation; (ii) the certain payoff goes to a donation, whereas the lottery prize goes to them; (iii) they are the sole recipient in either case; (iv) the charity is the sole recipient in either case. From the last two conditions, one sees that subjects are equally risk-averse for themselves as they are for the charity. In the two conditions involving self-other tradeoffs, however, subjects' risk attitudes reverse: compared to the no-tradeoff conditions, in (i) they display more aversion to charity risk, and in (ii) less aversion to self risk. Intuitively, a sufficiently high risk aversion can serve as an excuse for the self-serving choice in the first case, and a sufficiently low one in the second. Exley (2016)

also shows that the asymmetric risk-response pattern is stronger for subjects who prefer to avoid payoff-relevant information in the moral wiggle room game of Dana et al. (2007), providing further evidence for excuse-driven behavior.

Garcia et al. (2020) show that subjects display a similar behavior when the costs and benefits for self and/or charity are ambiguous instead of risky. Interestingly, the magnitudes are similar, suggesting that the mere presence of uncertainty is used as an excuse, irrespective of whether it is due to risk or ambiguity.

Many other features of the choice context are used as excuses. Exley (2020) shows that people also use charity-performance metrics in that way. Relative to a choice between charities, subjects are much more sensitive to performance metrics when this can benefit them, compared to when the choice is between two charities. Exley and Kessler (2024) demonstrate that subjects make errors in simple cognitive tasks, but predominantly in the direction that benefits themselves. When performing simple additions, for instance, they make very few errors when those benefit one charity over another, but a significant number when those benefit them instead of a charity. They find similar directional errors are in estimation tasks prone to correlation neglect (see also Bolte and Fan (2023)) or to anchoring, which all provide the excuse that the mistake may have been due to “innocent” inattention or use of a simplifying heuristic.

Another excuse is to distort one’s belief about others’ behavior. Di Tella et al. (2015) show that subjects who have more to gain from behaving selfishly toward another player are more likely to believe that this person acted selfishly toward them. This effect appears to be sensitive to the experimental design or measurement, however, as follow-up studies generally found no belief distortions about others’ actions (Ging-Jehli et al., 2020; Ahumada et al., 2022; Verrina, 2023).

In Hamman et al. (2010), subjects use delegation as an excuse for bringing about selfish allocations. When given the option to delegate their dictator-game decision to a third party, they do so, but systematically seek intermediaries who have a track record of favoring the dictator over the recipient. Such delegation leads to significantly lower transfers, while at the same time, principals report feeling less personally responsible for the outcomes.

These patterns of behavior are again at odds with classical models of prosocial behavior, such as warm-glow or pure altruism. In contrast, using risk, ambiguity, or the possibility of inadvertent mistakes as excuses allows people to maintain a positive self-image while extracting more for themselves. Note that, here also, some element of *self-deception* must be involved. Some of the excuses used are fairly transparent, and moreover, when using an excuse, or a fortiori seeking one out, the individual must remain or quickly become unaware (self-serving memory) of why they really acted the way they did.

3.7 Further applications

3.7.1 Asking and being asked

As mentioned before, a large literature documents the “avoid the ask” phenomenon: people will often incur costs to avoid situations in which they would have to make a moral or prosocial decision (e.g., DellaVigna et al., 2012). On the other side of the interaction, despite expressions like “It can’t hurt to ask,” people often hesitate to make requests—whether for a favor, a loan, a recommendation, or a raise—even when most others would accept if made aware of the need. Indeed, asking can actually “hurt”, in two identity-relevant ways. First, through shame: a request may signal weakness, neediness, or lack of competence, thus damaging social image, and possibly self-image. Second, through rejection: a deliberate refusal reveals that the potential helper does not really value the person in need or the relationship, which can be hurtful or humiliating. To avoid such a loss in self-image, that person may refrain from asking, thereby foregoing significant benefits. The first mechanism primarily involves social signaling of some stigmatized trait (Chandrasekhar et al., 2018). The second, studied by Bénabou et al. (2025), is a form of information aversion, and it applies even when the request reflects positive characteristics (e.g., a nomination for a prize) rather than negative ones. The authors also show how this reluctance to ask can induce generous helpers to offer unsolicited help. The downside, however, is that a failure to offer can then deter asking even more, leading to “waiting traps” where each party would like the other one to act, but neither does.

3.7.2 Incentivization and hypothetical bias

People's choices in theoretical decisions and those that have real consequences often diverge, a phenomenon known as hypothetical bias. In the context of contingent valuation studies, in particular, several meta-analyses, e.g., List and Gallet (2001) and Murphy et al. (2005), provide robust evidence that hypothetical willingness-to-pay (WTP) generally exceeds by far those elicited using real money. As a more recent example, Rodemeier (2023) similarly shows that stated WTP for carbon offsets is substantially higher than the revealed-preference WTP.

Moral identity concerns provide a rationale for the discrepancy when there is a tradeoff between self-interest and generating positive externalities for others. When choices have little consequences, signaling prosociality by expressing a high WTP for the externality is “cheap” (Bénabou et al., 2023). When real money is at stake, such signaling becomes more costly, and demand for generating the externality thus declines. As such, not only can self-image motivations explain hypothetical bias, they also predict when the bias should be strongest: in decisions involving image-relevant options.

Johansson-Stenman and Svedsäter (2012) test this prediction in an experiment that varies two aspects of a WTP elicitation: first, whether it is hypothetical or has real consequences, and second, whether the elicitation is about an image-relevant good – the preservation of endangered animals – or a restaurant voucher, as a neutral good. For the image-relevant good, WTP is significantly lower in the real-consequence case compared to the hypothetical choice, whereas there is no significant difference between the two for the neutral good.²⁴ Similarly, Bénabou et al. (2024) find that subjects' willingness to forgo self-payments in order to trigger a donation for a good cause is substantially higher when the choice has no consequence, compared to when there is a chance it actually gets implemented. In contrast, they find that hypothetical bias is absent in the trolley dilemma, an ethical decision where there is no tradeoff between benefits to self and to others, and no universally agreed notion of which is the moral action.²⁵

²⁴Heinicke (2018) similarly finds that hypothetical bias is higher when information given about a product emphasizes its sustainability, which may increase subjects' self-image concerns.

²⁵Related to hypothetical bias, self-image concerns may also contribute to systematic biases in self-reported

Relatedly, Grossman (2015) runs dictator games in which choices are implemented either with certainty or with probability 1/3. Prosocial choices increase slightly in the latter case, but this difference is statistically insignificant, so that no evidence of self-signaling is found in this case.

3.7.3 Moral cleansing and moral licensing

In settings where moral decisions have to be made repeatedly, self-image concerns may give rise to what are called moral cleansing and moral licensing effects, which are two opposite forms of history-dependence.

Moral cleansing refers to the pattern in which, after a moral transgression such as acting selfishly toward someone else or harming the environment, individuals engage in compensatory or offsetting actions such as charitable donations, helping others, or endorsing prosocial values. Intuitively, having damaged their moral identity, they subsequently try to restore it. In Ploner and Regner (2013), for instance, subjects first roll a die, either publicly or privately, to determine their endowment for a subsequent dictator game. They then decide, as dictators, how much of this amount to share with another participant. The authors find that subjects who took advantage of the anonymity condition to cheat in the first stage, so as to receive a high endowment, are subsequently more generous in the dictator game.

Moral licensing, on the other hand, describes the phenomenon where past good moral behavior gives the individual a perceived “license” to act less morally in subsequent decisions. Intuitively, those who acted well have built up some self-reputational capital, some of which they can afford to spend later on. In a sequence of sixteen dictator games, Brañas-Garza et al. (2011) show that participants’ donations in one round negatively predict giving in the next, thus demonstrating both moral licensing (less giving after generous choices) and moral cleansing (greater giving after selfish choices).

In marketing experiments, Khan and Dhar (2006) find that consumers who merely imag-

survey data (Bursztyn et al., 2025). When answering sensitive questions, respondents may be reluctant to admit – even to themselves – that they hold certain attitudes or engaged in particular behaviors. For instance, evidence has shown that respondents overstate positive behaviors such as the amount of charitable giving (Bekkers and Wiepking, 2011) and physical activity levels (Colley et al., 2018), while downplaying behaviors that are associated with dependence or failure, such as applying for unemployment insurance (Dutz et al., 2021).

ined volunteering for an environmental cause rated themselves as more prosocial, but afterwards were more likely to make indulgent purchases like choosing designer over practical goods. Clot et al. (2016) similarly show that subjects who imagine engaging in a pro-environmental task are afterwards more likely to (really) appropriate money from a common pool, particularly when “doing” the task was chosen and unrewarded. Clot et al. (2018) find similar effects on subsequent dictator-game giving, which becomes more selfish. In a field experiment with over 1,500 workers in a large firm, List and Momeni (2021) find that employees’ exposure to a corporate social-responsibility message stating that the firm is giving 5% of its wage bill to a charity “on behalf of all the workers who helped us with [a] project” leads to increases in shirking and cheating. In laboratory experiments in China, Hong et al. (2025), demonstrate that while public generosity increases with audience size due to greater reputational incentives, subsequent private giving declines.

Whereas moral cleansing and especially moral licensing, which involves a reversal of behavior, are difficult to account for in (typically static) models of identity based on preferences, they arise quite naturally in the presence of self-image concerns, as explained above and formalized in Bénabou and Tirole (2011) and Hong et al. (2025).

3.7.4 Political preferences: predistribution versus redistribution

The importance of self-image concerns also extends to the political domain. As documented by Kuziemko et al. (2023) for the United States, less educated voters significantly prefer *predistribution* policies such as public-sector employment, minimum wages, protective tariffs, subsidies to plants that might otherwise close down, etc., to *redistribution* policies such as taxes and transfers. Conversely, those are preferred by educated voters (and economists), who are firmly opposed to predistribution. Similarly, in almost every country, farmers facing declining prices want production subsidies and import restrictions rather than transfers, or especially monetary incentives to keep their land fallow. A natural explanation, universally proffered by the people in question and amply documented by sociologists, is that there is self-worth and dignity attached to working and feeling that one is a productive member of society, rather than living off “handouts”.

Conversely, those receiving welfare benefits are seen as having negative characteristics, such as being lazy or failures (Stuber and Schlesinger, 2006; Chase and Walker, 2013; Li and Walker, 2018). This stigma, both social and internalized, may be a factor contributing to the low take-up of benefits that many welfare programs suffer from (Currie, 2006), even though participation is mostly private. Also very much in line with the cognitive mechanisms we have seen at work in self-image (such as information avoidance and motivated memory), minimum wages, price supports, and trade protections are much less salient and repeatedly visible (to self and others) signals, relative to periodic transfers, of having low productivity and being dependent on the generosity of others.

Relatedly, Bénabou and Tirole (2009) show how concerns of dignity and pride can lead to bargaining failures and conflicts even when information is symmetric and there are mutual gains from trade. Individuals and groups with such identity concerns will reject “insultingly low” offers even though they make them materially better off, because accepting them can be seen as admitting to oneself (and possibly others) a low productivity, weakness, or fault (Babcock and Loewenstein, 1997; Bewley, 1999). In contrast, walking away and “slamming the door” or scapegoating the other party for a bad situation can help preserve a sense of self-worth and/or sustain wishful beliefs about one’s abilities and future prospects.

4 Collective identity, groupthink, and stereotypes

Most studies on self-image to date have focused on individually formed beliefs about the self, such as one’s morality (prosociality, fairness, honesty), intelligence, religiosity, etc., and their implications for individual behavior. As mentioned in the introduction, however, identity is also in large part a social phenomenon, involving how groups see themselves and each other, and how this affects and is affected by their interactions. Accordingly, researchers have started to explore the emergence of collective beliefs and identities as an equilibrium phenomenon of *social cognition*.

On the theoretical side, Bénabou (2013) shows how wishful thinking can become contagious in groups, organizations, or markets. Other members’ beliefs about the nature of

one's group or the environment it faces shape their actions, which in turn affect everyone's future prospects (expected utilities, returns, risks). These prospects, in turn, determine the relative costs and benefits of realistic versus distorted beliefs about the group and/or the self, whether through anticipatory feelings or self-motivation incentives. Depending on the interaction structure, the contagion of motivated beliefs –horizontally among peers or vertically in a hierarchy– can result in either beneficial group morale or harmful groupthink and ensuing crises.

McGee (2024) shows how incorrect group stereotypes can emerge and persist, due to strategic interactions that make motivated beliefs (or belief inculcation by parents) individually optimal. In competitive environments, publicly known negative stereotypes about another group's abilities discourage its efforts and valuably increase one's own, even though the stigmatized group disagrees with the stereotype. In cooperative environments, positive stereotypes about the other group allow one's own to free ride and force the other to work harder. Although incorrect and potentially harmful socially, these beliefs persist as an equilibrium: if enough of the other members of one's group adopt them, it is individually optimal to do so as well.

Liqui-Lung (2022) models how people use identity cues, like gender or ethnicity, to guide decisions under uncertainty even when these cues are uninformative. Agents have only noisy signals of their abilities (imperfect self-knowledge again) and infer their chances of success partly from how frequently others in their group have succeeded in the past in it. Although non-Bayesian, this “identity-based inference” helps them optimally self-select into more or less competitive or risky activities, such as STEM fields, finance, etc. This type of self-serving conditioning on an irrelevant variable is related to those in González-Jiménez (2022) and Thaler (2024). Because that irrelevant statistic is here endogenous, however, these choices generate feedback loops: when fewer members of a group participate and succeed in some type of career, future agents from that group update down on their own ability and become less likely to enter, thus perpetuating disparities in participation and outcomes.

On the experimental side, Oprea and Yuksel (2022) explore how belief distortions evolve

through bilateral communication. They elicit subjects' beliefs about whether they are in the top or bottom half of their group on an IQ test, then allow them to revise these beliefs continuously, in real time. After a while, each subject is matched with a counterpart in the same performance group, and both can observe the evolution of each other's beliefs. Updating is once again highly asymmetric: more pessimistic subjects in a pair significantly raise their belief toward that of the more optimistic counterpart, while there is almost no movement in the other direction. No such pattern occurs when the pairing is based on a random number, removing the scope for self-image concerns. The authors conclude that the data rejects both standard Bayesian updating and confirmation bias, but instead provides evidence of motivated beliefs about whose estimate is the most accurate.

In Kogan et al. (2025), subjects compete either individually or in groups of six on how well they do in solving a hard combinatorial problem, with the best-performing individual, or group, receiving a prize. In the group condition, members work jointly on the problem, can communicate by chat, and must submit a common response. In both cases, the individual or group receives a noisy signal about its performance, and each subject's beliefs about it are elicited both before and after receiving the signal. The individual and group conditions both display the standard good news-bad news updating asymmetry, to about the same extent. Thus, collective deliberation fails to correct individuals' motivated belief formation. In another condition, an asset market is introduced, in which group members can trade bets with each other on their group winning the competition. Market prices depart significantly from fundamentals in an overoptimistic direction, with subjects displaying even stronger motivated updating than in the individual condition, as well as a reluctance to bet against the preferred group outcome.²⁶

Both papers provide evidence for the self-serving nature of group identity, sustained through mutually amplifying belief distortions, and against the common notion that information aggregation through communication or markets naturally correct individual biases—the wisdom-of-crowds hypothesis.

²⁶In a second experiment, the authors vary the weight of each agent's contribution, as well as that of luck, to the team's outcome. They find suggestive evidence that the main motive for the collective delusion is anticipatory utility rather than ego utility.

5 Experimental methods to reveal self-image concerns

In this section, we discuss the main methods researchers have used in their experimental designs to identify self-image concerns, common threats to identification, and directions for future research.

5.1 Exploiting asymmetric predictions

A key feature of the self-image framework is that it predicts asymmetric response patterns: people should update more following positive than negative feedback, remember positive deeds better than negative ones, and selectively avoid information that could threaten rather than bolster their self-view. Accordingly, a principal method has been to study such asymmetric patterns, tested against the Bayesian information-seeking and updating benchmarks. As described in Section 3, for motivated belief updating researchers investigate subjects' responses to receiving good versus bad news about their own ability (Eil and Rao, 2011; Möbius et al., 2022), for motivated memory they examine the recall of positive versus negative feedback (Chew et al., 2020; Zimmermann, 2020), and for information avoidance they study attitudes towards information about others' payoff versus one's own (Kandul and Ritov, 2017; Moradi, 2018).

5.2 Manipulating the scope for self-image concerns

Creating a placebo condition. Another key feature of the self-image framework is that it predicts behavioral effects only when the choice object, information, or decision outcome is relevant to a person's self-image. This allows researchers to design placebo treatments that are structurally identical to the main ones, but do not carry any information about ability, moral values, or any other desirable attribute. For instance, as discussed previously, Eil and Rao (2011) and Möbius et al. (2022) have placebo conditions in which subjects perform the same updating tasks as in the IQ treatment and receive information that is quantitatively similar, but not about IQ. Similarly, Exley (2016), Exley and Kessler (2023), and Bosch-Rosa et al. (2024) design control conditions in which, instead of facing a tradeoff between their

own utility and that of others, subjects face a tradeoff that either only concerns their own utility, or only others' utility. In such situations, decisions are uninformative about one's generosity, so self-image concerns cannot operate.

Minimizing scope for alternative explanations. Another strategy employed is to create decision situations that are private and fully anonymous, eliminating social-image concerns. For instance, Bursztyn et al. (2020) and Nasim and Stegmann (2022) offer, respectively, Pakistani men and Pakistani school owners an option that has material benefits (monetary payment, free educational materials) but threatens their political identity (thanking the US government, receiving valuable teaching materials from a progressive NGO). The choice is private, so the fact that a significant fraction of respondents turn the offer down can only be attributed to self-image concerns.²⁷ A related method is to place subjects in a double-blind setting, where neither decisions nor payments can be linked by the experimenter to subjects' identities. For instance, reporting choices in the die-rolling paradigm Fischbacher and Föllmi-Heusi (2013) cannot be observed by anyone except the subject itself. Similarly, Bénabou et al. (2023) use a double-blind payment procedure (Barnettler et al., 2012) to study the role of self-image concerns in driving differences between direct-elicitation and multiple price list elicitation methods.

5.3 Directly manipulating self-image concerns

Changing the link between actions and self-image relevant values. Several papers use interventions such as information provision to change subjects' beliefs about the association between actions and values (a_2 and θ). For instance, Mechtenberg et al. (2024) conduct an experiment prior to a ballot on whether to prohibit the dehorning of cattle, which animal-rights activists describe as an animal-harming practice. A randomly selected half of subjects is informed about the empirically documented correlation that people who harm animals also tend to harm humans. The other half is informed about the lack of correlation between empathy with animals and empathy with humans. The information thus changes the signal-

²⁷One might be worried about subjects not trusting that their choices are truly anonymous. However, Bursztyn et al. (2020) also conduct a treatment where responses are made public. The fraction refusing to accept the bonus actually decreases, so anonymity concerns cannot explain the refusal of the bonus.

ing value about altruism conveyed by one's vote. In line with the self-signaling model, the authors find a significant treatment effect both on intentions to vote in favor of prohibiting dehorning and reported voting behavior after the ballot took place.

Tonke (2025) uses a similar method in a field experiment on people's propensity to pay their public-utility bills. Across several treatments, in appeals sent to subscribers, he varies whether the appeal emphasizes that paying one's bills is what a "responsible citizen" should do. In a post-intervention survey, he finds that subjects' self-perception of being a responsible citizen is increased after receiving these appeals, while receiving a neutral appeal does not change self-perceptions. Importantly, the identity appeal leads to significantly higher bill payments during both the three-month intervention and the following eight months.

In another field experiment, Ghosal et al. (2022) study an intervention that attempts to change the values that sex workers in India associate with their occupation. In weekly group sessions over eight weeks, the treatment group received a psychological intervention that aimed to improve their impaired self-image through interactive discussion, verbal persuasion, and role playing. For instance, discussions centered around whether the workers could regard themselves as someone trying to make an honest living, which is better than being a thief or a dishonest person. Relative to a control who received no such intervention, the authors find positive effects on self-image, as measured through survey items such as self-worth and shame about their occupation. Importantly, intervention subsequently increased workers' saving and preventive-health behavior.

Changing beliefs about others' characteristics. Another method of changing subjects' beliefs about the association between actions and values is to provide them with information about the characteristics of other people performing these actions. Schneider (2022) studies how consumers' demand for a product is affected by the ideological values of its customer base. He first threatens subjects' self-image by having them take and see the results of an implicit association test (IAT) that has been argued to measure implicit racism. They then face a choice between two consumption goods, after observing the choices made by 10 other individuals. In the treatment, subjects learn that those individuals are right-wing extremists, while in the control group, they receive no further information. He finds that

subjects' willingness to pay for the consumption good that is associated with right-wing extremists through their choices is significantly lower. As the experiment is double blind, the treatment effect is best explained by subjects having uncertainty about their own type, and consumption choices acting as signals about type.²⁸

A similar technique is used by Henkel and Zimpelmann (2025) in the context of financial decisions. In their experiment, subjects decide whether to invest in stocks or a safe asset. Prior to their choice, they receive information about the charitable-donation behavior of 10 stockholders and 10 non-stockholders. These 20 individuals are randomly sampled from a larger population, which generates exogenous variation in the difference in donation behavior between stockholders and non-stockholders. The authors first show that subjects change their perceptions of stockholders based on the information: most initially think stockholders are greedy and selfish, which are highly identity-relevant traits, as the authors verify. Second, given information that shows positive donation behavior of stockholders, subjects adjust their beliefs. Importantly, their investment choices are influenced by this identity-relevant information: the less stockholders donate relative to non-stockholders, the less likely subjects are to choose the stock option.

Changing self-image through interventions. Somewhat less common in economics are interventions that directly manipulate self-image or its salience. Such interventions are more common in psychology, for instance in the large literature on self-esteem (e.g., Sweeney and Moyer, 2015). One exception is a natural experiment by Bursztyn et al. (2018), who study the demand for status credit cards in a sample of Indonesian bank customers. They first show that “platinum” credit cards, which signal higher status, have higher demand than control ones that provide the same material benefits but do not carry the “platinum” label. To investigate the role of self-image in driving this demand, they experimentally increase subjects' self-esteem by asking them to describe a recent experience from their personal or professional life that made them feel particularly proud. The idea is that higher self-esteem

²⁸Teyssier et al. (2015) conduct an experiment in which they elicit subjects' WTP for fair-trade goods. In one condition, subjects learn the WTP of another subject before making their own, private choice. When learning about a WTP that is higher than their own, they do not increase their own WTP, while they significantly adjust downwards if the other WTP is lower.

lowers the need for self-reassurance through consumption behavior. The treatment indeed increased subjects' self-esteem and subsequently lowered their demand for platinum credit cards.

Also in the domain of economic status, Bottan et al. (2025) use hypothetical discrete-choice experiments to estimate, on a large representative sample of the US population, people's willingness to pay (WTP) for a higher self image (by reducing other citizens' average income) and social image (by increasing others' perceptions of one's income). In their preferred estimates, the value of self-image is at most 19% of that of social image, albeit with a lot of individual heterogeneity. In our view, their design has certain features that could underestimate self-image and overestimate social image, but it provides an innovative first step at disentangling the two.²⁹

Falk (2021) implements a literal self-image manipulation. Participants choose between receiving a monetary reward at the cost of another person experiencing a medically harmless but painful electric shock, or forgoing the reward to prevent the shock. Next to the computer screen where subjects make their decisions, they are presented with either a live feed of themselves, themselves in a mirror, a neutral video feed, or no further content. Accordingly, in the first two treatments, subjects are being watched by themselves when making decisions. This has an effect on behavior: subjects are significantly less likely to selfishly choose the reward and shock to the other person in those two conditions.

5.4 Threats to identifying self-image concerns

Confusion and inattention. One possible confounding factor is that subjects may be confused about, or inattentive to, the experimental instructions. An extensive literature has shown that these factors can influence behavior in many of the experimental paradigms that papers studying self-image concerns build upon.³⁰ The fraction of subjects appearing to

²⁹Impoverishing the society one lives in has negative externalities that subjects may also value, and incentivizing the social-image measure by having them predict what the average prediction of others' WTP will be (Krupka and Weber (2013) method) could generate coordination on an overestimate if everyone thinks (and thinks that others think) that others are more vain than they themselves are, as is likely the case.

³⁰Houser and Kurzban (2002) show how confusion affects behavior in the public-goods game, Koppel et al. (2025) in the dictator game and other social games, Cason and Plott (2014) for the Becker-DeGroot-Marschak (BDM) method, and Danz et al. (2022) for the binarized scoring rule.

avoid free information may thus be artificially inflated if some of them are inattentive and make random choices. Similarly, when comparing hypothetical and incentivized choices, misunderstanding the incentives may induce differences in choices that are unrelated to self-image concerns.

Two important features of the predictions from self-image models allow researchers to alleviate concerns about confusion and random choice. First, as discussed previously, many predictions involve asymmetric patterns, whereas (in symmetric choice settings) confusion-induced random choice would cause symmetric errors. For instance, subjects being confused about a classical balls-and-urns updating task would not lead them to update differently in response to positive versus negative news. Similarly, inattention to IQ signals cannot explain why subjects recall positive ones better than negative ones. Second, using placebo conditions is an effective way to address concerns about confusion or inattention. A well-designed placebo is structurally identical to the main treatment, ensuring that any misunderstanding or inattentiveness – whether related to the choice object, the information provided, or the decision outcome – affects behavior in both treatment and placebo equally. Accordingly, comparing outcomes across the two conditions effectively controls for these confounds.

Experimenter demand. Another threat to the proper identification of self-image effects is experimenter-demand effects – the concern that participants may try to guess the experimenter’s objective from the instructions, and then act accordingly. Hence, instead of self-signaling values with their behavior, they may be engaging in social signaling. Such an effect is more likely to occur when the experimental design makes the goal of the experiment apparent, for instance by providing subjects with morally loaded information and then measuring their updating behavior.

However, in many of the settings discussed in Section 3, experimenter-demand effects are unlikely to occur. This is because these experiments often rely on comparisons that are not inferable from the instructions, or because demand effects would actively work against the hypothesis. In Zimmermann (2020), for instance, subjects may infer that the experimenter expects them to update their prior: after all, they have received some information. However, as the experiment shows, after one month, subjects only update after receiving

positive, but not negative information. In general, papers that explicitly study the scope of experimenter- demand have shown that such effects often have little impact on responses, even when such a demand is explicitly stated, or questions are hypothetical (De Quidt et al., 2018; Mummolo and Peterson, 2019; Danz et al., 2023)

As experimenter-demand effects are a general concern in experimental economics, the literature has also developed several solutions to deal with them. One is employing a double-blind procedure (Barmettler et al., 2012), which makes it clear to subjects that the experimenter is interested in their personal and “natural” behavior. Another is the use of an obfuscated follow-up (Haaland and Roth, 2020). Using an independent layout, invitation, and design, the researcher recontacts participants after some time to measure different outcomes. If the obfuscation is successful and subjects perceive no connection between the main experiment and follow-up, demand effects cannot drive a treatment effect found in the latter. For instance, Henkel and Zimpelmann (2025) use this method to show that self-image-relevant information persistently changed attitudes with respect to stock investments. Lastly, one can add a condition that contains an explicit demand in order to benchmark the influence of potential demand effects (De Quidt et al., 2018). For instance, Schneider (2022)’s study on consumption goods includes a robustness treatment with the added sentence “We expect that participants who are shown these instructions will specify a lower maximum price than they normally would.” He finds that the sentence has no effect on demand.

5.5 Directions for further research

There are many fruitful directions for future research, some of which we outline here.

Field evidence. Field experiments remain a small minority compared to those conducted online or in the laboratory. Besides the cost and logistical factors involved, an important reason is that clearly identifying self-image motives becomes more challenging outside tightly controlled environments. Nevertheless, further findings from field settings would be especially valuable, particularly for assessing the importance of self-image concerns for real-world behaviors, relative to other determinants of people’s choices.

Interplay of self-image and group-identities. Another important direction is the emergence and often fact-proof persistence of collective self-image and group identities, arising through “contagion” in individuals’ motivated views of themselves and their environment. As mentioned earlier, there is a nascent theoretical and empirical literature on this question, but the interplay between group-based and self-image-based approaches to identity remains underexplored. Further studies of how groups influence the cognitive strategies and self-images of insiders and outsiders and, conversely, how individuals’ self-image concerns and motivated beliefs aggregate up to influence group dynamics, should be high on the list of priorities.

Direct measures and heterogeneity. Almost all experiments so far identify self-image concerns using between-subject variations. Similarly, while some papers have studied how these effects vary across domains (IQ versus beauty, prosocial versus financial decisions, etc.), it is obvious that some people are more secure than others in their identity. More specific measures at the individual level would open up many new questions for study. For instance, evidence on the extent, determinants and correlates of heterogeneity would allow one to assess the importance of variations in self-image concerns within and between samples or populations, relative to variations across contexts –incentives, observability, interactions, culture, etc. This, in turn, would help us better understand when and to what degree self-image concerns are likely to emerge and matter, as well as allow for welfare analyses.

6 Conclusion

As shown in this survey, self-image concerns pervade many aspects of people’s cognition and behavior. They lead to information avoidance, asymmetric recall, rationalizations, and belief updating after identity-threatening versus identity-enhancing news, and to self-signaling actions. Identity-protective beliefs, in turn, have important effects on a host of economically important behaviors, among which: (i) altruism, charitable giving, and environmental responsibility; (ii) lying, conflicts of interest, and other moral choices; (iii) avoidance or

delegation of decisions; (iv) effort, willingness to compete, and behavior in strategic interactions; (v) financial risk taking and investment; (vi) health and fertility decisions; (vii) failures of the “wisdom of crowds”, as individual belief distortions can be mutually amplifying, resulting in biased group decisions; (viii) inefficient bargaining failures and conflicts; (ix) political attitudes toward redistributive transfers versus price and wage supports.

While research on these mechanisms and effects has grown exponentially over the last twenty-five years, many open questions remain, and the role of self-image in individual, social, economic and political behaviors remains a rich topic for further study.

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