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Lay Beliefs in True Altruism versus Universal Egoism

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Contemplating the first and most simple operations of the human soul,
I think I can perceive in it two principles prior to reason,
one of them deeply interesting us in our own welfare and preservation,
and the other exciting a natural repugnance at seeing any other sensible
being, and particularly any of our own species, suffer pain or death.

—ROUSSEAU, *1950/1755, PREFACE*

No man giveth but with intention of good to himself,
because gift is voluntary; and of all voluntary acts,
the object is to every man his own good; of which,
if men see they shall be frustrated, there will be no beginning of
benevolence or trust, nor consequently of mutual help.

—HOBBES, *1651, CHAPTER 15*

Are human beings capable of truly altruistic behavior? This question has been central to many scholarly disciplines, including philosophy, psychology, economics, and theology (Batson, 1991, 2011). Yet scholars still disagree fervently on the answer. We approached this issue indirectly. Our research did not concern the existence of true altruism or scholarly disagreement on the topic. Instead, it focused on the beliefs of lay people.

Do lay people side with Rousseau's introductory claim and deem that people are capable of truly altruistic behavior? Alternatively, do they side with Hobbes's claim and agree that all apparent altruism is egoistically motivated? Moreover, is there consensus or disagreement among lay people's beliefs? If lay people differed in their beliefs in true altruism, how would these differences be linked to their other beliefs about human nature? Finally, and probably most importantly, are individual differences regarding belief in the existence of true altruism associated with moral character? These questions

have potentially important ramifications, because the answers promise a fuller understanding of the genesis of moral character. Thus, our research (Gebauer, Sedikides, Leary, & Asendorpf, 2015), which we review in this chapter, has begun to address these questions.

Our research may also help to bridge the classic altruism literature (Batson, 2011; Sober & Wilson, 1998; Stich, Doris, & Roedder, 2010) with the burgeoning literature on lay beliefs (Baumeister, 2008; Carey & Paulhus, 2013; Dweck, 2000). Hence, before embarking on a description of our findings, we briefly discuss (a) the literature on true altruism, (b) the broader literature on lay beliefs, and (c) prior indirect evidence regarding lay beliefs in true altruism versus universal egoism.

Brief Review of the True Altruism Literature

Helpfulness, kindness, cooperation, and the like, are frequent human behaviors (Dovidio, Piliavin, Schroeder, & Penner, 2006). There is no scientific dispute about that. There is also no scientific dispute about the notion that these prosocial behaviors can be motivated by various forms of self-interest. Put otherwise, even the most fervent proponent of true altruism's existence would agree that prosocial behavior is often motivated by egoistic concerns, including the expectation of personal benefit, positive affect, or reciprocal favor (Batson, 2011; Rousseau, 1950/1755). Hence, the altruism debate does not revolve around the issues of whether people act prosocially (they do) or whether human prosociality can be egoistically motivated (it can). The altruism debate refers to whether human prosociality is sometimes motivated by a genuine desire to benefit others as an end in itself—that is, by true altruism.

We borrowed our definition of true altruism from Batson (1991, p. 6): "Altruism is a motivational state with the ultimate goal of increasing another's welfare." In contrast to Batson, we use the term *true altruism* rather than simply *altruism*. We were influenced in our terminological choice by researchers who suggested that the term *true altruism* better describes Batson's motivational conceptualization of altruism (Maner, Luce, Neuberg, Cialdini, Brown, & Sagarin, 2002; Piliavin & Charng, 1990; Sober & Wilson, 1998), because the simple term *altruism* has frequently served as a synonym for reciprocity (Trivers, 1971) and prosociality (Rushton, 1976; Sober, 1988).

EMPIRICAL APPROACHES TO THE EXISTENCE OF TRUE ALTRUISM

Traditionally, the altruism question has been mainly debated in philosophy as well as in theology and economics (for thorough reviews, see Batson, 2011; Stich et al., 2010). Yet, over the last half-century, psychology has been at the

forefront of the true altruism debate. Even philosophers welcome this shift: "As generations of introductory philosophy students have found out, such arguments [i.e., logical arguments for true altruism versus universal egoism] are bound to end in inconclusive speculation—so long as the competing explanations are not *empirically* evaluated" (Stich et al., 2010, p. 170; emphasis added). What has psychological research found out?

Many of the early empirical psychologists assumed that human nature is characterized by universal egoism (Campbell, 1975). Guided by this assumption, many psychologists in the 1970s amassed evidence for egoistic reasons underlying helping (Cialdini, Darby, & Vincent, 1973; Piliavin & Piliavin, 1973; Schwartz, 1977; Staub, 1974). For example, Schwartz (1977) pointed to the power of normative expectations as drivers of prosociality. Some others, however, made an empirical case for true altruism (Krebs, 1975; Meindl & Lerner, 1983; Sagi & Hoffman, 1976). This case, though, was inconclusive. As Batson (1991) put it, "[T]he empirical evidence presented in support is unconvincing; it can easily be accounted for by one or more egoistic explanations" (p. 47).

Still, the early empirical evidence for true altruism was crucial, because it highlighted the role of other-oriented emotions as motivational forces of true altruism. For example, Hoffman (1981) saw "an affective response appropriate to someone else's situation rather than one's own" (p. 128) as the motivational basis of true altruism. Similarly, Rosenhan, Salovey, Karylowski, and Hargis (1981) argued that "while experiencing those [other-oriented] affects, people are led away from stances that maximize their own rewards and find instead that their attention, cognitions, and behaviors are directed toward the needs of others, often without regard for the quid pro quo" (p. 234).

To be sure, the idea that other-oriented emotions are involved in the genesis of true altruism did not originate in psychology. Theologians and philosophers had entertained this possibility for centuries (Stich et al., 2010). For example, Thomas Aquinas (1917/1270) argued that "mercy is the heartfelt sympathy for another's distress, impelling us to succour him if we can" (article 1, objection 3), and Adam Smith (1853/1759) argued that "*compassion*, the emotion which we feel for the misery of others, when we either see it, or are made to conceive it in a very lively manner" (section 1, chapter 1; emphasis added) drives selfless concern for others. Nonetheless, early empirical psychologists introduced other-oriented emotions into the empirical inquiry of true altruism and, as such, they paved the way for the most influential statement of true altruism, Batson's (2011) theory.

At the heart of Batson's theory lies the empathy-altruism hypothesis (Batson, 1987, 1991), according to which "empathic concern produces altruistic motivation" (Batson, 2011, p. 11). We have described how Batson defines altruism (i.e., *true altruism* in our terminology). But what precisely does Batson mean by the term "empathy"? Empathy, he stated, refers to "other-oriented emotion elicited by and congruent with the perceived welfare of someone in need" (Batson, 2011, p. 11). He clarified that empathy is ultimately "other-oriented in

the sense that it involves feeling for the other—feeling sympathy for, compassion for, sorry for, distressed for, concerned for, and so on" (Batson, 2011, p. 11). The empathy-altruism hypothesis stipulates that perceiving a person in need, coupled with adopting that person's perspective, can induce empathic concern for the other person. This, in turn, can trigger the truly altruistic motivation to have the other person's need satisfied.

Batson and colleagues first presented empirical evidence for the empathy-altruism hypothesis in the late 1970s and early 1980s (Batson, Duncan, Ackerman, Buckley, & Birch, 1981; Coke, Batson, & McDavis, 1978). In subsequent years, skeptics of true altruism's existence raised several egoistic alternatives underlying the effect of empathy on prosociality. These alternatives include aversive-arousal reduction (Piliavin, Dovidio, Gaertner & Clark, 1981), empathy-specific punishment (Archer, 1984; Dovidio, 1984), general empathy-specific reward (Thompson, Cowan, & Rosenhan, 1980), empathic joy as empathy-specific reward (Smith, Keating, & Stotland, 1989), negative-state relief as empathy-specific reward (Cialdini, Schaller, Houlihan, Arps, Fulz, & Beaman, 1987), and empathy-specific self-other merging (Cialdini, Brown, Lewis, Luce, & Neuberg, 1997; for reviews, see Batson, 1991, 2011; Batson & Powell, 2003; Cialdini, 1991).

Today, after 40 years of empirical scrutiny, how does the empathy-altruism hypothesis fare? Contemporary psychologists' views remain divided, partly because definitive empirical tests have been difficult to obtain. To illustrate, Batson and Powell (2003) concluded that contemporary alternatives cannot explain the evidence for the empathy-altruism hypothesis; hence "in addition to our all-too-apparent failing and fallibilities, we humans are, at times, capable of caring, and caring deeply, for people and issues other than ourselves" (p. 479). In direct opposition to this conclusion, Maner et al. (2002, p. 1609) concluded that "evidence gathered across numerous studies compellingly points to egoistic, rather than altruistic, explanations for prosocial behavior, including those forms of aid for which purely selfless motives have been claimed."

The long history of belief versus disbelief in true altruism's existence among scientists is interesting in its own right. This, however, is not the reason we described the state of scientific disagreement at some length. The reason is that this long-standing disagreement can also be seen in lay people's beliefs about altruism.

Brief Review of the Literature on Lay Beliefs

Lay beliefs can be impactful guides of behavior (Baumeister, Masicampo, & DeWall, 2009), comparable perhaps to attitudes (Ajzen & Fishbein, 1980), values (Rokeach, 1973), goals (Kruglanski, Shah, Fishbach, Friedman, Chun, & Sleeth-Keppler, 2002), and personality traits (John & Srivastava, 1999). Yet, the literature on lay beliefs is considerably less developed and influential than the literatures on the aforementioned constructs. Relative lack of influence may be due to its heterogeneity and disconnect from the mainstream.

In this section, we briefly review the research on lay beliefs. We discuss beliefs in a just world, in free will, in the existence of God, and in moral goodness. Further, we highlight the relation between these lay beliefs and moral character.

FOUR LAY BELIEFS AND THEIR RELATION TO MORAL CHARACTER

Belief in a just world. According to Lerner and Miller (1978), people have a "need to believe that they live in a world where people generally get what they deserve" (p. 1030). As a result of this need, lay people are prone to believing that they live in a just world (Lerner, 1965, 1980). However, people differ in the degree to which they consider the world just (Dalbert, Montada, & Schmitt, 1987; Rubin & Peplau, 1975). Such individual differences are related to life outcomes (Dalbert, 2009; Furnham, 2003), including moral character. Specifically, belief in a just world can motivate prosocial behavior, because just-world believers may assume that acting prosocially will be rewarded, whereas refraining from prosocial acts will be penalized (Bierhoff, Klein, & Kramp, 1991).

Belief in free will. The existence of free will has sparked long and irreconcilable debates in philosophy, much as the existence of true altruism has (Baumeister, Mele, & Vohs, 2010; Kane, 2005). Unlike the topic of lay belief in the existence of true altruism, lay belief in free will has garnered a great deal of psychological attention over the past 30 years (Baumeister, 2008; Stillman, Baumeister, Vohs, Lambert, Fincham, & Brewer, 2010; Stroessner & Green, 1990; Viney, Waldman, & Barchilon, 1982). Relevant research has documented that most lay people believe in the existence of free will (Paulhus & Carey, 2011).

This research has also identified individual differences in the belief in free will and shown that these individual differences are associated with life outcomes, including moral character. Free will believers (compared to disbelievers) exhibit more helping behavior (Baumeister et al., 2009). Indeed, experimental evidence buttresses the idea that belief in free will encourages moral behavior; whereas disbelief in free will discourages moral behavior. For example, persuading people that free will does not exist leads to higher levels of cheating (Vohs & Schooler, 2008), lower willingness to help, and increased aggression (Baumeister et al., 2009).

Individual differences concerning belief in free will are typically assessed with continuous rating scales, ranging from a strong conviction that free will does not exist to a strong conviction that it does (Baumeister et al., 2009; Carey & Paulhus, 2013; Vohs & Schooler, 2008). The advantage of continuous rating

scales is that they allow participants to express differing degrees of subjective certainty about the existence (or non-existence) of free will. Our research on belief in true altruism adopted this continuous rating scale approach (Gebauer et al., 2015). Our use of continuous rating scales is also consistent with research on other lay beliefs, including the belief that personality is mutable versus fixed (Chiu, Hong, & Dweck, 1997; Dweck, 2000; Dweck & Leggett, 1988) and the belief in the existence versus non-existence of God (Friese & Wänke, 2014; Kay, Gaucher, Napier, Callan, & Laurin, 2008; Shariff & Norenzayan, 2007).

Belief in the existence of God. Belief in the existence of God is one of the oldest documented lay beliefs of humankind. The Venus of Willendorf is a 4.25-inch statuette, probably carved in the Paleolithic Period ("Old Stone Age"). The statuette is thought to symbolize a fertility goddess (Ruether, 2005) and, as such, dates belief in god(s) at least to 22,000 BC. Philosophical debates about the existence of God date back to the ancient Greeks (see Aristotle's *Metaphysics*), much like debates about the existence of true altruism and free will. Compared to the latter two kinds of lay belief, however, belief in God's existence has received much empirical attention from psychologists (Baumeister, 2002; Saroglou, 2014; Sedikides, 2010).

Belief in the existence of God is prevalent. A representative survey from the 1980s showed that 95% of the US population believed in God's existence (Gallup & Castelli, 1989). Nonetheless, there are individual differences linked to various outcomes. For example, religious belief (including belief in God) is associated with higher self-control (McCullough & Willoughby, 2009). Although one might expect that religious people would be more prosocial (Shariff & Norenzayan, 2007), the relationship between belief in God and prosociality has proven to be intricate. Religious individuals report considerably more prosocial behavior (Bloom, 2012; Galen, 2012), and informants attribute heightened prosociality to them (Saroglou, 2012; Saroglou, Pichon, Trompette, Verschueren, & Dernelle, 2005). The picture changes, however, when prosociality is operationalized as overt behavior (Darley & Batson, 1973; Norenzayan & Shariff, 2008). One extensive review of that literature concludes that the religious prosociality hypothesis is altogether a "congruence fallacy" (Galen, 2012, p. 899). The *minimal prosociality* account (Saroglou, 2013) offers another explanation for the gap between religious individuals' prosociality self-reports and their behavior. According to Saroglou (2013), religious individuals exhibit rather specific forms of prosocial behavior, "behaviors that are not necessarily of high cost but hold at least some importance if one wants to perceive oneself and be perceived by others as moral" (p. 4).

Belief in moral goodness. Are people generally good to others or are people generally bad and defective in cooperative situations, refuse to help, and lack trustworthiness? Lay belief in moral goodness has been studied by many psychologists under various labels. For example, Rosenberg's (1956) Faith in People scale assesses belief in moral goodness with items such as "Most people are inclined to help others" and "If you don't watch yourself, people will take advantage of you" (negatively scored). Schuessler's (1982) Doubt about Trustworthiness of People scale assesses belief in moral goodness with items such as "Most people can be trusted" and "Most people don't really care what happens to the next fellow" (negatively scored). Wrightsman (1991) noted the conceptual overlap between these measures. Content validity considerations suggest that these measures are best described as indicators of the belief that human beings generally possess a morally good character.

There is a key difference between belief in moral goodness and beliefs in a just world, free will, and God's existence. Specifically, most lay people do not believe that humans are generally good-natured and possess moral character. Participants from France, Germany, and the United States provided ratings that are consistently closer to the "bad nature" than the "good nature" pole of the scale (Bégue, 2002; Gebauer et al., 2015). However, here again, individual differences emerge (Rosenberg, 1956; Schuessler, 1982). Also, lay people who believe that people are generally good-natured possess more moral character (Cadenhead & Richman, 1996; Rosenberg, 1957). Experimental evidence documents the effect of belief in moral goodness on prosocial behavior. Hornstein, LaKind, Frankel, and Manne (1975) exposed participants to news broadcasts that highlighted humans' good nature or their bad nature. Participants who viewed the good nature broadcast exhibited more prosocial behavior than those who viewed the bad nature broadcast.

There is a conceptual difference between belief in moral goodness and belief in the existence of true altruism. Belief in moral goodness refers to whether people on average behave prosocially and morally (Wrightsman, 1991). In contrast, belief in the existence of true altruism refers to the *motivation* that underlies such prosocial and moral behavior. Hence, a person who believes that people are generally prosocial and moral may also believe that their prosociality and morality are based on true altruism; alternatively, this person may believe that all prosociality and morality are based on universal egoism.

CONCLUSIONS ABOUT LAY BELIEFS

In all, empirical research suggests that most lay people believe in a just world, free will, and the existence of God. At the same time, this research suggests that most lay people have doubts about people's moral goodness and believe that human behavior is more bad than good. Individual differences in these lay beliefs have been linked to life outcomes, in general, and to prosociality and moral character, in particular. In contrast, there is little, if any, conclusive research on lay beliefs in the existence of true altruism. Still, existing research provides a starting point for our own empirical endeavors (Gebauer et al., 2015). We turn to that prior research next.

Brief Review of Prior Research on Lay Beliefs in True Altruism versus Universal Egoism

Two research lines pertain to individual differences in belief in the existence of true altruism. In their early work on altruism, Batson and his colleagues used several self-report measures to assess "self-perceived altruism" (Batson, Coke, Jasnoski, & Hanson, 1978; Batson, Fulz, Schoenrade, & Paduano, 1987; Thomas & Batson, 1981; Thomas, Batson, & Coke, 1981). With one exception, that work assessed self-perceived altruism with self-ascription of multiple traits, including "helpful," "cooperative," "compassionate," "considerate," "unselfish," "generous," "responsible," and "sympathetic." These measures, then, assess neither participants' belief that they act truly altruistically nor their belief that humans in general are capable of acting in a truly altruistic manner. Instead, the measures are better described as assessing a broad, prosociality-related personality factor, which is often labeled "communion" (Gebauer, Leary, & Neberich, 2012). Despite the label "self-perceived altruism," then, that research does not bear relevance to lay beliefs in the existence of true altruism, and it did not intend to do so.

The exception is Batson et al.'s (1987) Experiment 1. Self-perceived altruism was assessed with two items: "To what extent do you generally help others for selfish reasons?" and "To what extent do you generally help others for unselfish reasons?" (1=*not at all*, 9=*extremely*). These items assess participants' belief that they act truly altruistically and thus provide indirect insight into lay beliefs in the existence of true altruism; after all, one must believe in true altruism's existence in general in order to belief that one's own actions are at times driven by true altruism. Batson et al.'s results, then, are informative for our research questions. These results revealed that participants believed they generally help others more for unselfish reasons ($M=5.39$) than for selfish reasons ($M=2.77$)—a statistically significant difference. Thus, lay people believe not only that true altruism exists but also that most of their prosocial behavior is motivated by unselfish reasons. Yet, the results should be interpreted with caution. It is unclear whether participants' implicit definition of selfish versus unselfish reasons to help is consistent with the definition of true altruism that we have set forth here (see also Batson, 1991, 2011).

The second relevant line of research involves work on the belief in pure evil and pure good (Webster & Saucier, 2013). The 28-item Belief in Pure Good scale includes five items that assess belief in the existence of true altruism (e.g., "There is such a thing as a truly selfless/altruistic person"; "People only help others because they expect to be rewarded" [reverse scored]). However, although a handful of other scale items are indirectly linked to true altruism (e.g., "In essence, 'pure good' is selflessly helping other people in need"; "Even selfless people hate helping enemies" [reverse scored]), the vast majority of items are irrelevant to the existence of true altruism (e.g., "The forces of good will always prevail in the end"; "We DO NOT need more 'pure good' people in this world").

Unfortunately, Webster and Saucier reported results only for the full scale rather than for the items relevant to belief in the existence of true altruism separately. Hence, their results do not directly inform our research question. Nonetheless, it is telling that these authors found that true altruism items are part of the belief that humans can be purely good. This empirical finding is consistent with the entrenched philosophical position that the capacity for true altruism is a testimony to humans' good nature (Aristotle, 1911/350 BC; Bentham, 1876/1789). Two additional findings by Webster and Saucier are relevant. First, mean values of the Belief in Pure Good scale suggest that most people are inclined to believe in pure goodness: means were consistently above the theoretical scale midpoint. Second, the belief in pure goodness was related to some indicators of moral character, including self-reported volunteerism and support for needy children.

Together, a few studies have been concerned with the lay belief in the existence of true altruism, but they do not inform the questions that we posed (Gebauer et al., 2015). Specifically, no prior research has directly examined (a) whether lay people differ on their belief in the existence of true altruism and, if so, how many are "naive Rousseauians" versus "naive Hobbesians"; (b) whether and how belief in true altruism's existence relates to lay beliefs in a just world, free will, the existence of God, and moral goodness; and (c) whether and how belief in the existence of true altruism relates to prosociality and moral character. In the following three sections, we review our preliminary findings.

Review on Research Question I: Naive Rousseauians or Naive Hobbesians?

Are most lay people naive Rousseauians, believing that human prosociality can be truly altruistic, or naive Hobbesians, believing that human prosociality is universally egoistic? In a first step toward resolving these ambiguities, we (Gebauer et al., 2015) constructed a measure of belief in true altruism's existence, the Belief in the Existence of True Altruism (BETA) scale, which we describe below.

DEVELOPMENT OF THE BETA SCALE

Scale instructions. To be certain that participants understood the constructs of interest, we provided them with clear explanations of the key terms, including "selfless," "altruistic," "selfish," and "egoistic." Participants read the following instructions before responding to the items:

> Are humans capable of doing selfless good deeds or is all human behavior in the final end selfish (that is, motivated by expecting personal benefits, good feelings, social acceptance, or to be treated well in return)?

> In other words, can people be ultimately other-loving (i.e., be truly "altruistic") or does self-love (i.e., "egoism") underlie all human behavior? We are interested in your personal opinion. The following items will help us to assess whether you personally believe that people are capable of doing selfless good deeds or whether all human behavior is selfish in the final end (that is, motivated by expecting personal benefits, good feelings, social acceptance, or to be treated well in return).

Scale items. The 16 items of the initial BETA scale followed. Each item was accompanied by a 7-point rating scale (1 = *absolutely wrong*, 7 = *absolutely right*). Sample items are "People can act with the ultimate goal of contributing to another person's welfare and without expecting personal benefits of any kind"; "We have the potential to love other people in a truly altruistic and unselfish manner without expecting emotional, social, or material benefits for ourselves"; "Everything humans do for other people is motivated by self-interest of one kind or another" (negatively scored); and "The ultimate goal underlying our love for other people is selfish and egoistic in nature" (negatively scored).

Exploratory and confirmatory factor analyses. We included the 16-item BETA scale in two online studies. We advertised Study 1 (N=149) on a US-based web portal that lists psychological online studies (in English). We advertised Study 2 (N=226) on a German web portal for psychological online studies (in German). We used data from both studies to examine the factor structure of the 16 BETA items. The results of exploratory factor analyses (EFAs) were highly consistent across the studies. The EFA indicated the existence of two correlated dimensions (or factors). One factor contained the eight positively scored items; the other, the eight negatively scored items. An explanation for the two-factor structure is that lay people—unlike scholars (Batson, 2011)—do not think of true altruism and universal egoism as two opposing poles of a single dimension. Another explanation is to consider item scoring direction as an undesirable method factor that contaminated the single-factor structure of BETA. Indeed, scoring direction can artificially make a one-dimensional construct appear two-dimensional (Paulhus & Vazire, 2007), with the Rosenberg Self-Esteem Scale (Rosenberg, 1965) being a well-known example (Marsh, 1996; Tomas & Oliver, 1999).

We then used confirmatory factor analyses (CFAs) to examine whether the BETA scale's two-factor structure reflects a substantive, conceptual difference in positive versus negative beliefs about true altruism or a methodological response tendency to respond differently to positively worded versus negatively worded items. To do this, we conducted two additional online studies. We advertised Study 3 (N=171) in the United States and Study 4 (N=183) in Germany (in English and German, respectively). Among other measures, participants completed the BETA Scale, which we shortened to 10 items (5 positively scored, 5 negatively scored) on the basis of the two EFAs in Studies 1–2. Results in both studies indicated that the fit of the one-factor model was superior to that of the two-factor model.

DESCRIPTIVE STATISTICS OF THE BETA SCALE

We proceeded to examine mean scores on the BETA scale, the distribution of test scores, and the relations of BETA with demographic variables (culture, age, sex). We pooled the data of Studies 1–4 to achieve a larger sample (N=729).

Overall tendencies. We asked whether people on average tend to believe in the existence of true altruism versus universal egoism. Hence, we tested whether participants' test score on the BETA Scale was on average located above or below the theoretical scale midpoint (1 = *absolutely wrong*, 7 = *absolutely right*): scores above 4 indicated belief in true altruism; scores below 4, belief in universal egoism. Results revealed that on average participants tended to believe in the existence of true altruism. Both the mean and median of test scores across the pooled four-study sample were about one point above the theoretical midpoint of the scale. Conceptually identical results emerged when we separately examined the five positively scored items and the five negatively scored items. Lay people, then, are generally inclined to believe that true altruism exists.

Individual differences. We inspected the distribution of BETA scores. Do lay people uniformly believe in the existence of true altruism, or are there sizeable individual differences? If such differences exist, is BETA normally distributed, following a bell shape, with relatively few strong believers and disbelievers, and many more people close to the scale midpoint? Alternatively, is BETA equally distributed, with about the same number of people sternly believing, sternly disbelieving, and holding moderate beliefs concerning true altruism's existence? Lastly, a bimodal distribution is also possible, with relatively many stern believers and relatively many stern disbelievers, coupled with only a relatively small number of moderates. Figure 3.1 displays the BETA distribution. The figure shows that BETA has a skewed unimodal distribution, with most participants siding somewhat in favor of the existence of true altruism, and fewer participants siding for absolute certainty either way.

Relations with demographics. We wondered whether this prevalence of belief in true altruism (vs. universal egoism) varies as a function of participants' culture, age, or sex. We found no overall differences between German and US participants. However, US participants scored significantly higher than German participants on the positively scored items (albeit the effect size was very small; Cohen, 1977), but the two cultural groups did not differ significantly on the negatively scored items. Further, we found neither age differences nor sex differences on the whole scale or on separate analyses for positively scored and negatively scored items.

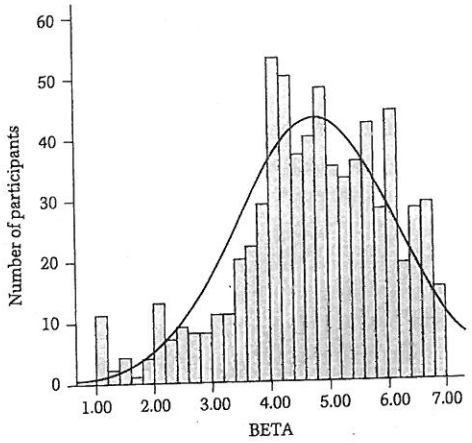

FIGURE 3.1 Distribution of BETA (N = 729).

CONCLUSIONS REGARDING RESEARCH QUESTION I

We obtained strong evidence that lay people are more inclined to believe in the existence of true altruism than in universal egoism. This proclivity was evident across participants from two countries (Germans and Americans), almost the entire adult age range, and both sexes. Individual differences on the BETA scale emerged, and they showed a skewed unimodal distribution.

Review on Research Question II: BETA and Other Lay Beliefs

How is BETA related to other lay beliefs? We addressed this question by capitalizing on relevant measures that we included in the above studies. These measures assessed belief in a just world (Dalbert et al., 1987), belief in free will (Paulhus & Carey, 2011), belief in God's existence (Norenzayan & Hansen, 2004), and belief in moral goodness (Rosenberg, 1956; Schuessler, 1982).

We hypothesized that BETA is distinct from the other four lay beliefs, but we also tested or explored additional hypotheses concerning relations between BETA and other lay beliefs. Given that true altruism and moral goodness have been classically considered instantiations of desirable human nature (Aristotle, 1911/350 BC; see also Webster & Saucier, 2013), we expected a positive relation between belief in moral goodness and BETA. Also, given religious references to the existence of true altruism (e.g., 1 Corinthians 13:4–7), we tested whether belief in (a Christian) God is positively associated with BETA. In addition, a positive outlook on the world is associated with belief in a just world (Dalbert, 2009) and with belief in true altruism's existence (Webster & Saucier, 2013). A positive relation, then, between belief in a just world and true altruism is likely. Finally, philosophers have often described free will and true altruism as desirable human capacities, suggesting a positive association.

We inspected the correlations between the five lay beliefs in the pooled sample from Studies 1–4 (N=729). As anticipated, BETA was distinct from the other four lay beliefs. To begin, we found small, positive relations between BETA and beliefs in a just world, free will, and God's existence (Cohen, 1988). Furthermore, we obtained moderate positive correlations between BETA and the two scales used to assess belief in moral goodness (Cohen, 1988). The relationship between BETA and the other four lay beliefs did not differ between the German and American samples.

CONCLUSIONS REGARDING RESEARCH QUESTION II

Across two cultures, the relations between BETA and other relevant lay beliefs (beliefs in a just world, free will, God's existence, and moral goodness) were small to moderate. Hence, BETA is a unique lay belief. The literature has linked all these other lay beliefs to higher prosociality and moral character. How is BETA, then, linked to moral character, especially in comparison to the other lay beliefs?

Review on Research Question III: BETA and Moral Character

Is belief in the existence of true altruism associated with higher prosociality and more moral character? Gebauer et al. (2015) examined three accounts for such a "BETA-character link." Before reviewing those three accounts, however, we comment on our measurement approach of moral character.

MEASUREMENT OF MORAL CHARACTER

Measuring individual differences in moral character is challenging (see Bleidorn, chap. 5, this volume; Miller, 2013). This broad construct cannot be captured adequately by a single behavior or a handful of behaviors. Hence, we operationalize moral character broadly, drawing on an array of established measures from psychology, sociology, and behavioral economics. In Studies 1–2, we used a measure of retrospectively reported helping (Rushton, Chrisjohn, & Fekken, 1981). In Studies 3–4, we used sociological questions about civic engagement (e.g., belonging to a charity organization, doing volunteer work; Costa & Kahn, 2003; Livingstone & Markham, 2008; Shah, 1998) in addition to the measure used in Studies 1–2. In Studies 5–6 (online studies in the United States and Germany; N=682), we used moral quandaries from philosophy (Bruder & Tanyi, 2014) in addition to the measures from our

prior studies. Finally, in Study 7 (a laboratory study in Germany; $N = 687$), we used three economic-decision games (dictator game [Kahneman, Knetsch, & Thaler, 1986]; ultimatum game [Güth, Schmittberger, & Schwarze, 1982]; trust game [Berg, Dickhaut, & McCabe, 1995]), asked participants to donate some of their participation money to charities (Verplanken & Holland, 2002), and assessed their willingness to volunteer for an Internet study in order to help a graduate student (Coke et al., 1978), in addition to the measures from our prior studies. Thus, our studies included up to eight diverse indicators of moral character. EFAs suggested that, in each of the seven studies, moral character can be adequately assessed by averaging the standardized responses to the measures.

THREE ACCOUNTS FOR THE BETA-CHARACTER LINK

BETA was associated with higher moral character in all seven studies. The size of this BETA-character link ranged between small and medium. But what explains this highly consistent relation between the belief in true altruism's existence and more moral character?

The "spurious-effect account." The BETA-character link may be caused spuriously by other variables with which it is correlated. First, all other aforementioned lay beliefs are related to moral character (as our literature review has shown) and to BETA (as our research has indicated). Therefore, the BETA-character link may be spuriously caused by these other lay beliefs. Second, people differ in the frequency and the degree to which they develop warm, empathic feelings toward others (Davis, 1983). People with a proclivity for empathy should help others more frequently (Eisenberg & Miller, 1987). They should do so because they are more frequently in a state of empathy, which elicits altruistic motivation (Batson, 1991, 2011). Empathic people should also believe more in the existence of true altruism, because their heightened altruistic helping reinforces their belief that true altruism exists (possibly via self-perception processes; Bem, 1967). Hence, the BETA-character link may be spuriously caused by trait empathy. Third, there are potential third variables pertaining to egoistic motivations to help. Examples are individual differences in seeing others as similar to self (i.e., self-other merging; Cialdini et al., 1997; Maner et al., 2002) or in gaining pleasure from helping (Gebauer, Riketta, Broemer, & Maio, 2008). To elaborate, it is, for instance, possible that the belief in true altruism's existence leads people to derive pronounced feelings of pleasure from helping ("look at me, what an altruistic helper I am"), which in turn may lead to exacerbated helping behavior. Finally, communion is a broad personality trait that is conceptually related to prosociality (Gebauer, Sedikides, Lüdtke, & Neberich, 2014). Thus, communion may spuriously inflate the relation between BETA and moral character.

We tested whether the BETA-character link weakened when we controlled for beliefs in a just world, free will, God's existence, and moral goodness. Pooling the data from Studies 1–4 ($N = 729$) showed that controlling for the other four lay beliefs did not substantially reduce the BETA-character link. In fact, in a model that included BETA and the four other lay beliefs as simultaneous predictors of moral character, only BETA had a significant relation to moral character. If anything, these results suggest that the relation between other lay beliefs and moral character is spuriously caused by the BETA-character link.

We subsequently tested whether the BETA-character link weakened when we controlled for empathic concern. Only Studies 5–7 ($N = 1{,}369$) included empathic concern. Hence, we pooled the data from these three studies. Research has established that empathic concern is one of the most robust correlates of prosocial behavior, and our results replicated this pattern. Specifically, in line with a meta-analysis (Eisenberg & Miller, 1987), we obtained a moderately positive relation between empathic concern and moral character. When simultaneously including BETA and empathic concern as predictors of moral character, the effect sizes of both predictors were somewhat reduced, but both predictors remained significant. Hence, the possibility that the BETA-character link is partly spurious to empathic concern deserves further attention. To this end, we proceeded with examining the longitudinal interrelations between BETA, empathic concern, and moral character. About 75% of Study 7's participants completed the same measures twice with a time interval of about half a year.[1] A full cross-lagged model provided evidence against the idea that the BETA-character link is spurious due to empathy. Specifically, neither did we find a significant longitudinal effect of empathic concern on BETA; nor did we find a significant longitudinal effect of empathic concern on moral character.[2]

Moreover, we tested whether the BETA-character link weakened when we controlled for general self-other merging (Aron, Aron, & Smollan, 1992) and prosocial motivation pleasure (Gebauer et al., 2008). Again, we used the pooled data from Studies 5–7 ($N = 1{,}369$). Simultaneous inclusion of BETA, self-other merging, and prosocial motivation pleasure as predictors of moral character revealed that neither self-other merging nor prosocial motivation pleasure accounted for the BETA-character link. Study 7's longitudinal analyses corroborated these results. Neither self-other merging nor prosocial motivation pleasure had a longitudinal effect on moral character or on BETA.

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[1] We are currently in the process of collecting a third wave of data for Study 7. Hence, the results of Study 7 should be regarded as preliminary.

[2] In our longitudinal analyses, we operationalized moral character with the average of six (out of our eight) measures. Specifically, two measures showed insufficient temporal stability (the trust game and volunteering in an online study to help a graduate student). This led us to strongly question the suitability of these measures to assess moral character (a character *trait*). At the same time, the stabilities of the other six measures were all comparatively high.

Finally, we tested whether the BETA-character link weakened when we controlled for communion. We had included a measure of communion (Gebauer, Paulhus, & Neberich, 2013) in studies 2, 3, 4, and 7, and we pooled the relevant data (N=1,267). Simultaneous inclusion of BETA and communion as predictors of moral character revealed that communion did not account for the BETA-character link. Study 7's longitudinal analyses corroborated these results. Communion had no longitudinal effect on moral character or on BETA.

The "BETA-effect account." In Roman Polanski's movie *Carnage*, Penelope Longstreet ponders a question that is right at the heart of the BETA-effect account. Specifically, she asks, "We are only superficially fair-minded, so why should we be fair-minded at all?" Along the same lines, reflections of BETA disbelievers may go like this: "If all our prosociality is nothing but an indirect (and possibly self-deceptive and other-deceptive) way to benefit ourselves personally, why should I not be outwardly and directly selfish, gaining not only personal benefits, but also authentically expressing my inner self" (cf. Lenton, Bruder, Slabu, & Sedikides, 2013). Consequently, the BETA-effect account predicts a positive relation between BETA and moral character because low BETA lowers moral character.

There is a complementary reason for why BETA may be linked to more moral character. Specifically, people who believe that truly altruistic behavior is indeed part of the human behavioral repertoire may seek to express their altruistic self in an effort to act authentically. As a result of that effort BETA believers may display more moral character than BETA disbelievers.[3]

We examined the BETA-effect account using Study 7's longitudinal data. A cross-lagged panel analysis revealed that BETA predicted moral character six months later, despite our controlling for the temporal stability of BETA and moral character over this time period. The results remained intact even when we controlled for empathic concern, self-other merging, prosocial motivation pleasure, and communion at both time-points. Thus, within the natural limits regarding causal conclusions based on nonexperimental designs, these longitudinal analyses are in line with the BETA-effect account.

The "character-effect account." People high in moral character may self-enhancingly convince themselves of true altruism's existence (cf. Leary, 2007; Sedikides & Gregg, 2008). By doing so, they can feel good about their moral character since it is driven by altruism, which they value (Aristotle, 1911/350 BC; Gebauer, Göritz, Hofmann, & Sedikides, 2012; Gebauer, Joiner, Baumeister, Göritz, & Teismann, 2015). Consequently, the character-effect account predicts a positive relation between BETA and moral character, because high moral character increases belief in true altruism's existence.

We also examined the character-effect account using Study 7's longitudinal data. Our cross-lagged panel analysis revealed that moral character predicted BETA six months later, despite our controlling for the temporal stability of BETA and moral character over this period. The results remained significant even when we controlled for empathic concern, self-other merging, prosocial motivation pleasure, and communion at both time-points.

[3] We thank Will Fleeson for suggesting this complementary theoretical explanation for why BETA may lead to more moral character.

CONCLUSIONS REGARDING RESEARCH QUESTION III

BETA is positively related to moral character. We obtained this BETA-character link in each of our seven studies. Results indicated that none of a range of third variables could explain the BETA-character link. In contrast, we obtained a longitudinal effect of BETA on moral character, and this effect proved robust even after controlling for empathy, self-other merging, prosocial motivation pleasure, and communion. We also found a longitudinal effect of moral character on BETA, and this effect, too, proved robust when controlling for empathy, self-other merging, prosocial motivation pleasure, and communion. Together, the BETA-character link is not likely to be spurious.

Conclusion

Lay beliefs have received relatively little attention in scientific psychology. Although they were not neglected altogether (Dweck & Leggett, 1988; Lerner, 1965), they received less attention than attitudes, values, goals, or traits. Yet, psychologists have increasingly become aware of the relevance of lay beliefs for human thought, feeling, and behavior. As a result, psychologists have amassed knowledge on key lay beliefs about human nature, such as belief in free will (Baumeister et al., 2009; Carey & Paulhus, 2013), moral goodness (Webster & Saucier, 2013; Wrightman, 1991), and the existence of God (Gebauer & Maio, 2012; Shariff & Norenzayan, 2007). However, one type of belief has received scarce empirical research—namely, belief in the existence of true altruism (BETA). Although true altruism has been discussed interminably for hundreds of years, no research has directly tested lay beliefs in true altruism's existence. In this chapter, we provided an overview of our research on this topic.

We addressed four key questions on BETA. *First*, we asked whether most lay people believe in the existence of true altruism or in universal egoism. We found that, on average, lay people believe in the existence of true altruism rather universal egoism. This pattern held across two cultures (Germany,

the United States), the adult age range, and both sexes. *Second*, we tested whether BETA can be conceptualized as an individual differences variable. We obtained considerable individual differences, which were relatively normally distributed. *Third*, we examined the relation between BETA and other relevant lay beliefs (beliefs in a just world, free will, God's existence, and moral goodness). BETA was consistently related to all these lay beliefs, but the size of the relations was small to moderate. *Finally*, we investigated the relation between BETA and moral character. In each of the seven studies, we obtained a positive relation between BETA and moral character. This BETA-character link occurred robustly despite sampling from two cultures (Germany, the United States) and using a large array of moral character measures, including retrospective self-reports of helping behavior, civic engagement indices, moral quandaries, three different economic games (dictator, ultimatum, and trust), charity donations, and volunteering in a time-consuming task.

We also began to study the nature of the BETA-character link. We tested for the spuriousness of this link due to other lay beliefs, major altruistic and egoistic drivers of prosociality, and trait communion. These third variables did not account for the BETA-character link. Instead, there was a bidirectional longitudinal relation between BETA and moral character. The longitudinal effect of BETA on moral character suggests that future scholarly insight into the existence of true altruism could have an effect on lay people's moral character. For example, if scientific evidence were to unambiguously support universal egoism, one might find an accompanying decline in lay belief in true altruism's existence and, as a result, a decline in moral character among lay people (cf. Vohs & Schoolar, 2008, for a similar argument regarding the belief in free will).[4]

The bidirectional longitudinal relation between BETA and moral character remained intact even when we controlled for empathy, self-other merging, prosocial motivation pleasure, and communion. In fact, in a common cross-lagged panel design, BETA was the only significant longitudinal predictor of moral character; whereas empathy, self-other merging, prosocial motivation pleasure, and trait communion played a little role at best. These findings attest to the usefulness and pervasiveness of the lay belief in the existence of true altruism.[5]

[4] Of course, this does not imply that scientific evidence for universal egoism should be concealed or evaluated more critically than evidence for true altruism.

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