

Moral Objectivism Across the Lifespan

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We report the results of two studies that examine folk metaethical judgments about the objectivity of morality. We found that participants attributed almost as much objectivity to ethical statements as they did to statements of physical fact and significantly more objectivity to ethical statements than to statements about preferences or tastes. In both studies, younger participants attributed less objectivity to ethical statements than older participants. Females were observed to attribute slightly less objectivity to ethical statements than males, and we found important interactions between attributions of objectivity and other factors, such as how strong participants' moral opinions were and how much disagreement about the issue they perceived to exist within society. We believe our results have significant implications for debates about the nature of folk morality and about the nature of morality in general.

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Philosophers have long assumed that the vast majority of ordinary people are unrestricted moral objectivists—i.e., that they take all moral claims to be objectively true or false and to apply to all people regardless of culture. For example, J. L. Mackie (1977, 33) famously claimed:

The ordinary user of moral language means to say something about whatever it is that he characterizes morally, for example a possible action, as it is in itself... and not about, or even simply expressive of, his, or anyone else's, attitude or relation to it... one that is absolute, not contingent upon any desire or preference or policy or choice.

More recently, Michael Smith (1994, 6, 84) has argued that “we seem to think moral questions have correct answers; that the correct answers are made correct by objective moral facts” and that “it is a platitude that our moral judgements at least purport to be objective.”¹ Despite the prevalence of these claims within the philosophical community², however, the fact remains that—at least until recently—they have lacked any empirical basis.

In the last few years, moral psychologists and experimental philosophers have begun to investigate folk metaethical intuitions in a systematic fashion, and a variety of interesting results have been obtained. Geoffrey Goodwin and John Darley (2008, 1343), for example, report finding that “individuals tend to regard ethical statements as clearly more objective than social conventions and tastes, and almost as objective as scientific facts” but that there was considerable variation in metaethical intuitions across individuals and across different ethical issues. Goodwin and Darley (2012) also report (i) that participants treated statements condemning ethical wrongdoing as more objective than statements enjoining good or morally exemplary actions, (ii) that perceived consensus regarding an ethical statement positively influenced ratings of metaethical objectivity, and (iii) that moral objectivism was associated with greater discomfort with and more pejorative attributions toward those with whom individuals disagreed.

¹ Indeed, what Smith calls ‘the moral problem’ is constituted by the following conjunction of alleged facts that do not sit well together: (i) Moral Objectivity: moral judgements are beliefs about matters of fact, (ii) Internalism: moral judgements, by themselves, motivate those who make them, and (iii) Humean Theory of Motivation: beliefs and desires are distinct states; beliefs on their own cannot motivate.

² Similar claims can be found in Brink (1989) and Darwall (1998).

Hagop Sarkissian, John Park, David Tien, Jennifer Wright, and Joshua Knobe (2011) found that folk intuitions about metaethical objectivity vary as a function of cultural distance, with increased cultural distance between disagreeing parties leading to decreased attributions of metaethical objectivity. Jennifer Cole Wright, Piper Grandjean, and Cullen McWhite (2012) found that not only is there significant diversity among individuals with regard to the objectivity they attribute to ethical claims; there is also significant diversity of opinion with respect to whether individuals take certain issues such as abortion or anonymously donating money to charity to be ethical issues at all, despite the fact that philosophers overwhelmingly regard these issues as ethical.

In the present article we report the results of two studies (one of which has been partially described in another publication) that contribute to this growing body of empirical investigations of folk metaethical judgments. We show that individuals in their teens and twenties often question or reject moral objectivism to a greater extent than at any other time in their lives. Like Goodwin and Darley (2008), we also observed significant variation across moral judgments and found that perceived disagreement about an issue lowered participants' inclination to endorse objectivism with regard to that issue. When combined with the findings of other studies of folk metaethical commitments, we take our results to provide a significant challenge to the traditional view among philosophers that the folk are unrestricted moral objectivists.

1. Study 1

As is well known, philosophers divide the field of ethics into metaethics, normative ethics, and applied ethics. Metaethics centers around questions about the meaning, source, grounding, or objectivity of ethical judgments. Normative ethics is devoted to the search for general standards

or principles that can serve as the basis for judging the rightness or wrongness of actions. Well-known normative ethical principles include ‘Respect the autonomy of every person’ and ‘Maximize the expected favorable consequences of one’s actions.’ Applied ethics focuses on the rightness or wrongness of specific kinds of actions—e.g., euthanasia, abortion, or the death penalty.

Some of the most important metaethical questions include the following:

- (1.1) What is the distinction (if any) between ethical norms and social conventions?
- (1.2) Does making an ethical judgment involve only the expression of one’s emotions?
- (1.3) Do all people have the same moral obligations or does what morality requires vary from culture to culture?
- (1.4) Are moral judgments objectively true or false?
- (1.5) Are there moral facts, and if so, how do these facts compare to scientific facts?

Goodwin and Darley (2008) undertook an examination of folk thinking about (1.4) and (1.5), which pertain to the mind-independence or objectivity of moral claims. Before their work, they note that metaethics was “largely unexplored” or only “explored tangentially” among moral psychologists, and their work has sparked a significant amount of subsequent research.

Goodwin and Darley (2008, 1357-8) attempted to investigate the extent to which ordinary participants were “ethical objectivists (i.e., individuals who take their ethical beliefs to express true facts about the world)” or “ethical subjectivists (i.e., individuals who take their ethical beliefs to be mind-dependent, and to express nothing more than facts about human psychology).” The most significant conclusion Goodwin and Darley (2008, 1343) draw is that “individuals tend to regard ethical statements as clearly more objective than social conventions and tastes, and

almost as objective as scientific facts,” although they note “there was considerable variation in objectivism, both across different ethical statements, and across individuals.”

Goodwin and Darley (2008, 1343) presented participants with a variety of claims from the domains of science, morality, convention, and taste, selecting items “on the basis of pilot testing as those that tended to produce either relatively strong agreement or disagreement.” In our opinion, the unforeseen result of this method of item selection was that the scientific statements tended to be significantly less controversial than the moral statements. Because Goodwin and Darley wanted to compare the objectivity ratings participants gave to scientific and moral claims, we thought it would be better if the research materials exhibited a more equal balance of controversial and uncontroversial statements within these domains. Thus, we modified some of the statements used by Goodwin and Darley and introduced others so that there was a roughly equal number of controversial and uncontroversial statements about matters of physical fact, morality, and taste. We later confirmed our armchair hypotheses about how controversial these matters were with participant ratings of them. The statements that we used in our study appear in Table 1.

Factual

- 1†. Frequent exercise usually helps people to lose weight.
2. Global warming is due primarily to human activity (for example, the burning of fossil fuels).
3. Julius Caesar did not drink wine on his 21st birthday.
4. There is an even number of stars in the universe.
- 5†. Humans evolved from more primitive primate species.
- 6†. Mars is the smallest planet in the solar system.
7. The earth is only 6,000 years old.
- 8†. New York City is further north than Los Angeles.

Ethical

- 9†. Anonymously donating a significant portion of one’s income to charity is morally good.
- 10†. Assisting in the death of a friend who has a disease for which there is no known cure and who is in terrible pain and wants to die is morally permissible.

- 11†. Scientific research on human embryonic stem cells is morally wrong.
 12†. Before the third month of pregnancy, abortion for any reason is morally permissible.
 13. Cutting the American flag into pieces and using it to clean one's bathroom is morally wrong.
 14†. Lying on behalf of a friend who is accused of murder is morally permissible.
 15†. Cheating on an exam that you have to pass in order to graduate is morally permissible.
 16†. Robbing a bank in order to pay for an expensive vacation is morally bad
 17. Hitting someone just because you feel like it is wrong.
 18†. Treating someone poorly on the basis of their race is morally wrong.

Taste

- 19†. Classical music is better than rock music.
 20. McDonald's hamburgers taste better than hamburgers made at home.
 21. Brad Pitt is better looking than Drew Carey.
 22. Gourmet meals from fancy Italian restaurants taste better than microwavable frozen dinners.
 23†. Beethoven was a better musician than Britney Spears is.
 24†. Barack Obama is a better public speaker than George W. Bush.

Table 1. Factual, ethical, and taste claims used in our cross-sectional study. A '†' indicates that the test item was based at least in part on an item used by Goodwin and Darley (2008).

Statements (2) and (7)—about global warming and the age of the Earth—were introduced to increase the number of controversial physical statements. We also introduced two factual or scientific statements (3 and 4) whose truth values are presently unknowable, in order to see if unknowability affected participants' objectivity ratings. Even though no one presently knows whether Julius Caesar drank wine on his twenty-first birthday, there would seem to be a fact of the matter that objectively determines whether he did or not do so. Ethical statement (13) is taken from Jonathan Haidt's (Haidt et al. 1993) work on the respects in which different populations of people take harmless but disrespectful actions to be morally wrong. Statement (17) is a standard test item in the moral/conventional literature. In the domain of taste, we wondered whether participants' might treat as objective statements that involved extreme comparisons—e.g., those between Beethoven and Britney Spears (23) and Brad Pitt and Drew Carey (21)—that (in our

minds at least) seemed relatively clear-cut and fairly objective.³ We wanted to see whether—in spite of the fact that everyone feels the need to agree that physical attractiveness lies purely in the eye of the beholder—the fact that Brad Pitt would be unanimously agreed to be far better looking than Drew Carey would lead participants to attribute objectivity to statement (21). Upon further reflection, we concluded that statement (24) was not a great example of a taste statement, insofar as Bush’s public speaking skills are most often associated with his occasional departures from the rules of English grammar and semantics, and these lapses are more objective than aesthetic flaws of his speech.

A concern that someone might raise about our research materials stems from the fact that our factual and ethical statements were non-comparative, asking participants to consider one object or event at a time, while our taste claims were comparative, asking participants to consider pairs of items. Any significant difference we obtain between participant assessments of these statement categories could well be due to differences of formulation rather than the core features of the statement categories themselves.⁴ Florian Cova and Nicolas Pain (2012), however, recently completed a study of the objectivity attributions of ordinary participants made to aesthetic statements. Using non-comparative statements that included the French predicates ‘*beau*’ (beautiful) or ‘*laid*’ (ugly), they obtained results equivalent to the ones we report below. Their results suggest that using non-comparative taste claims would not have affected the comparisons we made between different domains of judgments.

Each participant was asked to complete three tasks with respect to one-third of the statements represented in Figure 1. Task 1 was to indicate the degree to which they agreed or

³ For the uninitiated, Britney Spears is an American pop singer, Brad Pitt is an American actor known for his good looks, and Drew Carey is an American comedian and television personality who is known for his quirky looks that few would describe as handsome.

⁴ Thanks to Carolyn Korsmeyer for pressing this point with us.

disagreed with the statements on a six-point scale, where ‘1’ was anchored with ‘Strongly Disagree’ and ‘6’ with ‘Strongly Agree.’ In Task 2, participants were asked, “If someone disagrees with you about whether [one of the test statements is true], is it possible for both of you to be correct or must one of you be mistaken?” and were directed to choose between the dichotomous answers ‘It is possible for both of you to be correct’ and ‘At least one of you must be mistaken.’ The answer ‘At least one of you must be mistaken’ was taken to be an attribution of objectivity, and the answer ‘It is possible for both of you to be correct’ was interpreted as a denial of objectivity. In Task 3, participants were asked about the extent to which they thought that “people in our society” disagreed about the statements in question. Participants registered their opinions on a six-point scale anchored with ‘There is no disagreement at all’ and ‘There is an extremely large amount of disagreement.’ Each participant completed Task 1 with respect to eight of the items in Table 1, then completed Task 2 with respect to those same items, and then completed Task 3. These tasks were patterned after those used by Goodwin and Darley (2008).

Participants in Study 1 were 2,526 individuals (average age = 50, 43% female, 88% Anglo-American) residing in the Buffalo, New York, metro area or having a connection to the University at Buffalo (a large, state-funded institution), ranging in age from 12 to 89. Our sample included 120 seventh graders (average age = 13), 120 ninth graders (average age = 15), and 120 twelfth graders (average age = 17) from a middle-class suburb of Buffalo. Although lacking in significant ethnic diversity, this school district was chosen because the mean and median income levels of families within it closely matched the mean and median incomes of families across the region. 120 undergraduates (average age = 19) were also included in the study. The remaining adults were primarily professional staff (no faculty⁵) from the University at Buffalo and Erie

⁵ Henrich, Heine, and Norenzayan (2010) have famously wondered whether American undergraduates were the WEIRDest people in the world. We think American faculty members are even WEIRDer. Faculty were excluded

County Community College and alumni from the University at Buffalo.

A key motivation for our study stemmed from the limited age range found in existing studies of folk metaethical judgments. We are not aware of any published studies that examine the metaethical judgments of individuals across the entire lifespan. Comparing the non-objectivism of the undergraduates in his studies with the supposed moral objectivism of children, Shaun Nichols (2004, 11) writes:

If, as seems possible, some of these college students fully reject moral objectivism, it generates the longitudinal result that, at some point in their development, a number of individuals convert from objectivism to nonobjectivism.⁶

Because the data at Nichols' disposal do not go beyond the college years, they are unable to speak to the question of whether undergraduates who reject objectivism will continue to do so throughout adulthood. In order to address this question, we included within our surveys adults from every stage of life.

We formulated several hypotheses about what we expected to see in the data. First and most importantly, we hypothesized that college-aged participants and some individuals lying just outside this range would attribute less objectivity to moral statements than either younger or older participants. We predicted that we would see a significant drop in metaethical objectivism during this stage of the lifespan on the basis of several lines of reasoning. First, there is much anecdotal evidence from philosophy professors that a significant portion of their students (especially first- and second-year students) endorse some kind of non-objectivism. Secondly, we

because we were trying to investigate the metaethical judgments of 'the ordinary person,' and faculty fail to be ordinary in a number of ways. The most important is that their metaethical commitment are significantly more likely to be driven by theoretical considerations, whereas we wanted to investigate individuals' pretheoretical intuitions.

⁶ Nichols (2004, 21-22) also writes "For the developmental evidence suggests that basically all children are objectivists about canonical moral violations like hitting. So college students who are nonobjectivists about such violations have presumably abandoned their earlier objectivist views about these transgressions."

took into account the kinds of activities and experiences that participants in our sample commonly have during this stage of life. When middle-class Americans finish high school, they often move out of their parents' homes and live on their own for the first time. They enroll in college and their minds become broadened with new kinds of learning and life experiences.⁷ This is generally a period during which they intensively question what their parents have always taught them about morality and religion, and they decide for themselves whether to embrace or reject these teachings. Not only do Americans typically experience more new things in their late teens and early twenties than at any other stage in their adult lives, research in personality psychology shows that individuals are more open to new experiences, new ideas, and new ways of thinking at this age than during any other period of their lives (Nettle 2009). Describing this stage of life, Lawrence Kohlberg and Richard Kramer (1969, 117) wrote:

Erikson has made us familiar with the fact that Western society provides the post-high-school student with a psychosocial moratorium which allows him to live out either hedonistic or morally idealistic impulses (reflected in anything from life in protest groups to life in the Peace Corps) with a freedom he has neither earlier or later in life.

For these reasons, we hypothesized that college-aged participants and participants just outside this age range (e.g., seniors in high school and individuals in their later twenties) would be the least objectivist in our sample.

Following Goodwin and Darley (2008; 2012), we hypothesized that across all age groups there would be a negative correlation between the degree of controversy associated with a

⁷ One limitation of Study 1 is that all of our college-aged participants were enrolled in college. Working class individuals of the same age without the means to attend college will not have the same kinds of experience during this stage of life, and hence may not share the metaethical intuitions of their college-bound peers. Kohlberg (1973, 195) noted that none of the individuals in his longitudinal studies who did not attend college but went directly into the army or workforce exhibited the same skeptical or relativistic behavior of the sophomore regressor. They also failed to attain the highest stages of moral development, according to Kohlberg.

statement and the objectivity that was attributed to it and that participants would be more inclined to attribute objectivity to statements about which they had stronger opinions. For someone who has strong feelings about an issue, it is a settled matter in their own minds what the correct attitude is that one should adopt on that issue. It seems quite reasonable to think that such an attitude could make individuals more likely to think there is one correct perspective to take on the matter.

The proportion of objectivist responses participants gave to each of the twenty-four statements that appear in Table 1 are represented in Figure 1. As can be seen from Figure 1, the items in Table 1 are ordered within each subcategory in terms of increasing proportions of objectivity attributions.

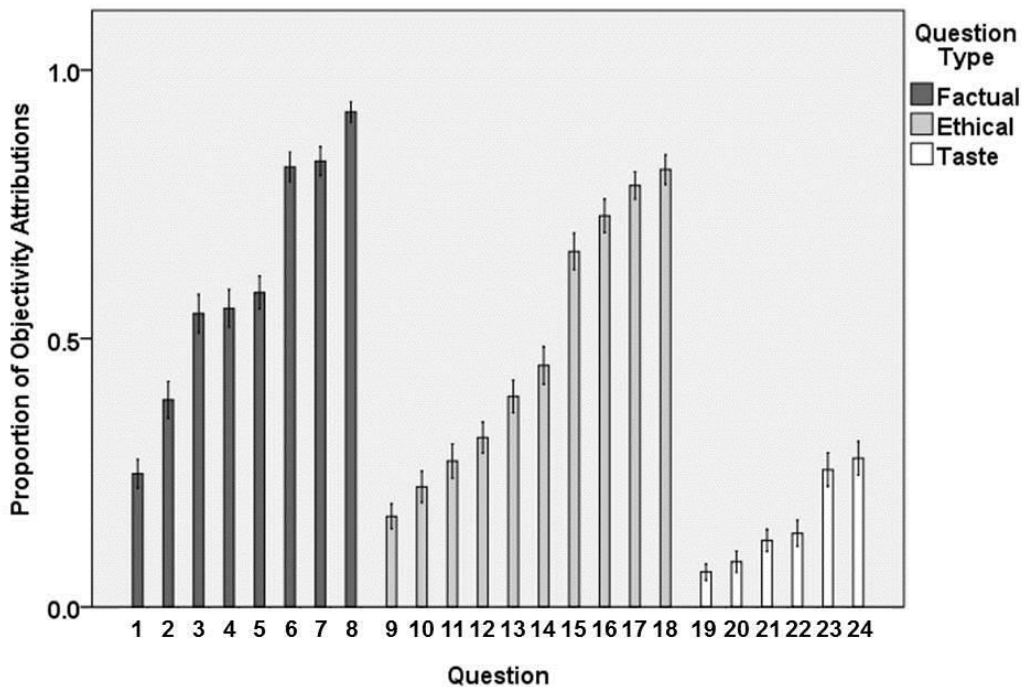


Figure 1. Proportions of participant objectivity attributions to the factual, ethical, and taste statements that appear in Table 1. Error bars in all figures represent 95% confidence intervals.

Collapsing the responses within each statement category reveals that significantly more participants attributed objectivity to factual claims (.60) than to ethical claims (.47), and more attributed objectivity to ethical claims than to taste claims (.15).⁸ However, as Figure 1 clearly shows, there was significant variation in the proportion of objectivity responses given to different claims within each subcategory. Within the factual domain, the statements that garnered the highest proportion of objectivist responses were those about the size of Mars (.82), the age of the Earth (.83), and the relative location of New York City and Los Angeles (.92). In the ethical domain, participants were most confident that at least one disagreeing party had to be wrong in cases that concerned robbing a bank (.73), hitting someone (.78), and racial discrimination (.81).

More participants attributed objectivity to some ethical claims than to some factual claims. For example, participants were on the whole more confident that someone had to be wrong in a disagreement about racial discrimination, robbing a bank, or hitting someone than in a disagreement about global warming (.39) or human evolution (.59). Participants were also more likely to think there was an objective answer about the comparative merits of Beethoven and Britney Spears (.26) than they were to think there was one about the goodness of anonymously donating money to charity (.17). Participants' response to the Beethoven and Britney statement was roughly equivalent to their euthanasia response (.22), and not as many participants thought there was an objective fact about Brad Pitt and Drew Carey's looks (.12) as we had anticipated.

Thus, we can see that because the strength of our participants' inclination toward objectivism varies according to the issue in question, the question of whether they are moral

⁸ Chi-squared tests were performed on the pooled data sets. Factual vs. ethical: $\chi^2(1, N = 15,054) = 225.698, p < .001$, Cramér's $V = .12$ (small effect size). Ethical vs. taste: $\chi^2(1, N = 13,525) = 1,427.017, p < .001$, Cramér's $V = .33$ (medium effect size).

objectivists is not going to have a simple ‘Yes’ or ‘No’ answer. We thus agree with Goodwin and Darley (2010, 170) when they write:

For instance, people tended to treat a statement about the wrongness of consciously discriminating against another person on the basis of race as more objective than a statement about the goodness of anonymously donating 10% of one’s income to charity. This finding contrasts with a presupposition that runs strongly through some philosophical writing—that ethical beliefs as a whole are objective or subjective, and that one’s meta-ethical view should apply en masse to one’s entire set of ethical beliefs, in a top-down, deductive fashion—what Sinnott-Armstrong (2009) refers to as the *uniformity assumption*.⁹

When the foregoing results are combined with those of Sarkissian et al. (2011), who found that objectivist judgments decrease as two disagreeing parties become separated by increasing cultural distance, we believe the correct conclusion to draw is that any account of folk moral objectivism will need to be able to accommodate multiple dimensions of flexibility or variability.¹⁰

Within each statement category we find that objectivity attributions are positively correlated with strength of belief about an issue (cf. Figure 2).¹¹ In other words, participants attributed more objectivity to claims they had stronger opinions about. We also found that participants on the whole had stronger opinions about the ethical statements than about the factual ones. Recoding all (strong) ‘1’ and ‘6’ responses on Task 1 as ‘3,’ all (moderate) ‘2’ and ‘5’ responses as ‘2,’ and (weak) ‘3’ and ‘4’ responses as ‘1,’ the mean strength of opinion rating

⁹ In more recent work, Goodwin and Darley (2012) have begun to investigate possible differences between distinct classes of ethical statements to which ordinary individuals’ metaethical judgments may be sensitive.

¹⁰ Cf. Beebe (2010) for one such account.

¹¹ Factual: $r = .26, p < .001$ (small effect size). Ethical: $r = .41, p < .001$ (medium effect size). Taste: $r = .24, p < .001$ (small effect size).

was 2.20 for factual statements, 2.45 for ethical statements, and 2.22 for taste claims. The differences between these ratings were statistically significant.¹² The fact that participants had stronger opinions about moral statements than factual statements but attributed less objectivity to moral statements suggests that, despite the correlation between strength of opinion and attributions of objectivity, participants were capable of separating the issue of objectivity from strength of opinion to at least some degree.

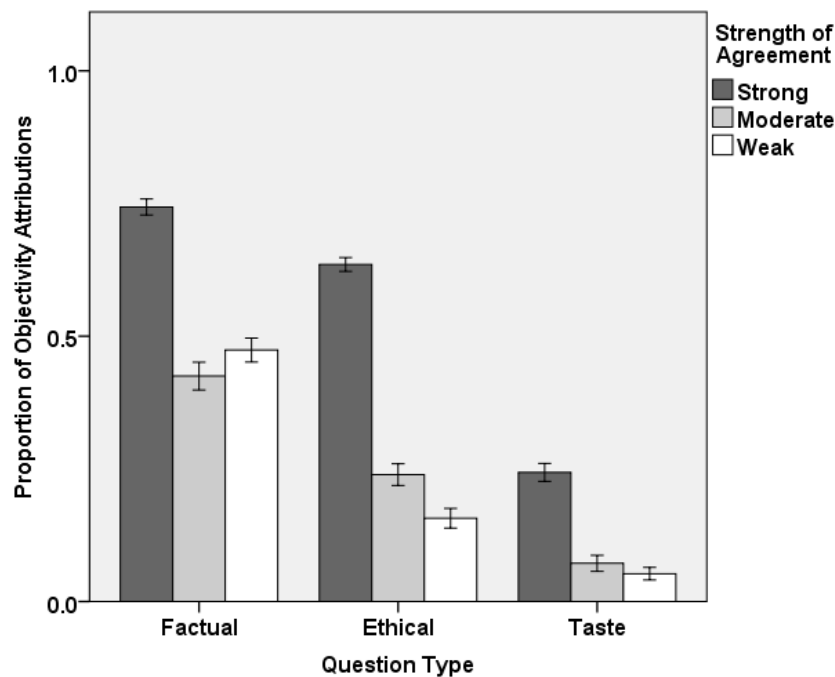


Figure 2. Proportions of participant objectivity attributions to factual, ethical, and taste statements, organized by strength of agreement.

On the whole, the average degree of perceived disagreement was higher for ethical statements (3.58) than for factual (3.29) or taste claims (3.31).¹³ We also found that objectivity attributions were negatively correlated with the extent of perceived disagreement about an issue

¹² $\chi^2(4, N = 19,963) = 422.063, p < .001$, Cramér's $V = .10$ (small effect size).

¹³ This difference was statistically significant. $\chi^2(10, N = 20,003) = 571.556, p < .001$, Cramér's $V = .12$ (small effect size).

in the factual ($r = -.17, p < .001$), ethical ($r = -.26, p < .001$), and taste ($r = -.13, p < .001$) domains (cf. Figure 3). The more widely disputed a statement was taken to be, the less often objectivity was attributed to it. However, despite the fact that participants rated ethical statements as being more controversial within society than taste claims, considerably more objectivity was attributed to ethical statements than to taste claims, again showing that participants are able to separate the issue of objectivity from other issues such as the extent of perceived disagreement. Higher ratings of perceived disagreement were also negatively correlated with participants' strength of opinion about factual ($r = -.14, p < .001$), ethical ($r = -.20, p < .001$), and taste ($r = -.16, p < .001$) claims.

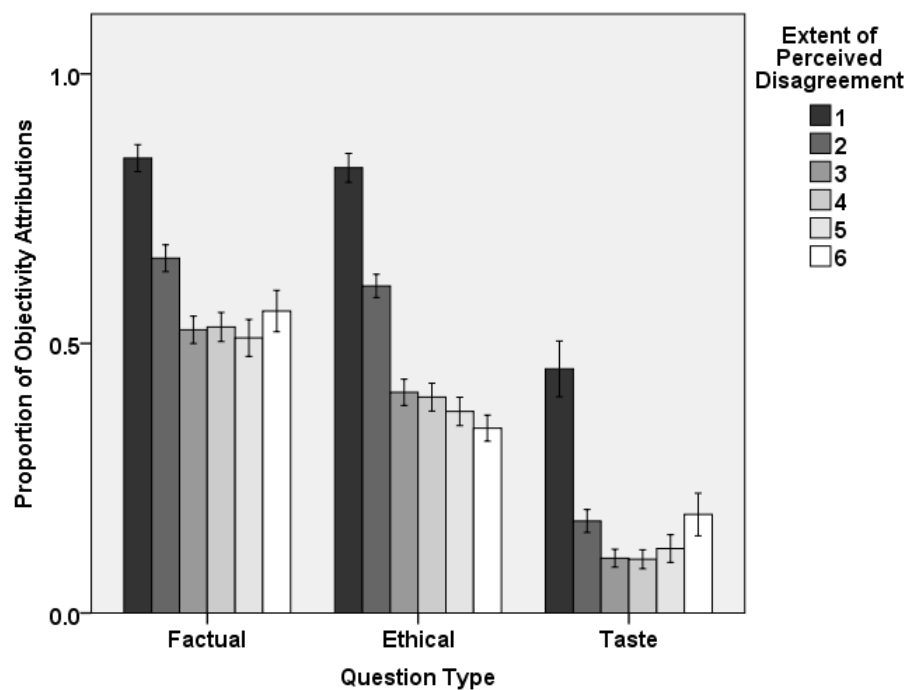


Figure 3. Proportions of participant objectivity attributions to factual, ethical, and taste statements, organized by the perceived extent of disagreement about them.

Two recent studies show that the negative association between metaethical objectivity attributions and perceived societal disagreement is more than merely correlational. Goodwin and

Darley (2012) presented undergraduate participants with bogus information about the percentage of students from the same institution who agreed with them about the correctness of certain ethical statements. Participants presented with low consensus estimates were significantly less likely to attribute objectivity to the statements than participants presented with high consensus estimates. Similarly, Beebe (2014) used the same materials employed in the present study but varied the order of Tasks 1 through 3. Half of the participants in his study completed the tasks in the same order as above, but the other half completed Task 1, then Task 3, followed by Task 2. Having participants reflect upon the extent of societal disagreement about ethical statements (Task 3) before completing Task 2 decreased their attributions of objectivity to those statements. Notably, the task order manipulation had no effect on participants' objectivity attributions to factual or taste claims.

The data reported above take individual statements as the relevant unit of analysis. Taking individual participants as our unit of analysis, we obtained a variety of additional significant results (cf. Table 2). For each participant and each domain of statements, we calculated how strong on average their opinions were in the domain in question, the proportion of times they attributed objectivity to the kind of statement in question, and the average amount of disagreement they reported for statements of each kind. We observed that males tended to have stronger opinions overall ($r = .04, p < .05$) and expressed more confidence about factual claims than females, but females had stronger opinions about ethical claims. Males attributed objectivity more often than females to statements in all three domains. Females tended to report more societal disagreement about ethical and taste claims than males, but there was no gender difference for factual claims. We also observed positive correlations between being a parent and attributing objectivity more often to factual and ethical claims and a negative correlation between

parenthood and attributing objectivity to taste claims. Approximately two-thirds of participants were parents, and the correlation between age and being a parent was large ($r = .57, p < .001$). Interestingly, participants in their twenties who were parents gave objectivist responses to ethical statements 52% of the time, whereas those who were not parents gave objectivist responses only 34% of the time—a difference that was statistically significant.¹⁴ We speculate that it is much easier to believe and assert that there are no mind-independent facts about morality when one does not have the responsibility for teaching a child what is right and what is wrong. Being a parent ceased to be a significant predictive factor for participants over the age of 30.

	Proportion of Objectivity Responses			Ave. Strength of Opinion			Ave. Perceived Disagreement		
	Factual	Moral	Taste	Factual	Moral	Taste	Factual	Moral	Taste
Gender	-.12***	-.05*	-.08***	-.14***	.05**	.01(ns)	.03(ns)	.13***	.06**
Parent	.05*	.08***	-.08***	.03(ns)	.14***	-.03(ns)	.04(ns)	-.03(ns)	.03(ns)
Age	.06**	.09***	-.07***	.11***	.22***	-.02(ns)	.09***	-.04*	.00(ns)

Table 2. Correlations between three demographic variables (being female, being a parent, and age) and the proportion of objectivity responses, average strength of opinion, and average perceived disagreement reported by participants in Study 1. In all tables, an ‘*’ indicates that the correlation was significant at the .05 level, a ‘**’ that it was significant at the .01 level, and a ‘***’ that it was significant at the .001 level.

We also observed statistically significant correlations between participants’ age and the proportion of times participants they attributed objectivity to statements in each of the three domains. Age was positively correlated with objectivist responses to factual statements. We speculate that this may be due to greater life experience providing participants with a number of opportunities to think about and act upon factual beliefs and to witness the reliability of scientific investigation concerning them. A negative correlation was found between participants’ age and

¹⁴ $\chi^2(1, N = 639) = 11.72, p < .01$, Cramér’s $V = .14$ (small effect size).

the proportion of times they attributed objectivity to taste claims. We found this to be unsurprising on the (speculative) grounds that, while teenagers sometimes believe that their popular music and fashions really are superior to the music and fashions of their parents' or grandparents' generations, older adults know that trends and fashions come and go. They know that skinny jeans will be considered fashionable for a time, and then baggy jeans will become popular. Then it will be bell-bottom jeans, and the whole cycle will repeat itself. Older individuals also tend to have greater knowledge of worldwide, cross-cultural diversity in matters of taste.

One of the most theoretically interesting findings of Study 1 is that participants' moral objectivity scores vary with age, as we had predicted. We observed a positive correlation between participants' age and their moral objectivity scores. To illustrate the significant effect that this modest correlation coefficient can have across the lifespan, we sorted participants into age groups using four-year increments and plotted the average moral objectivity score for each group in Figure 4. A significant upward trend is clearly observed.¹⁵

¹⁵ When a correlation coefficient is calculated on the values in Figure 4, the result is quite large ($r = .54$, $p < .05$).

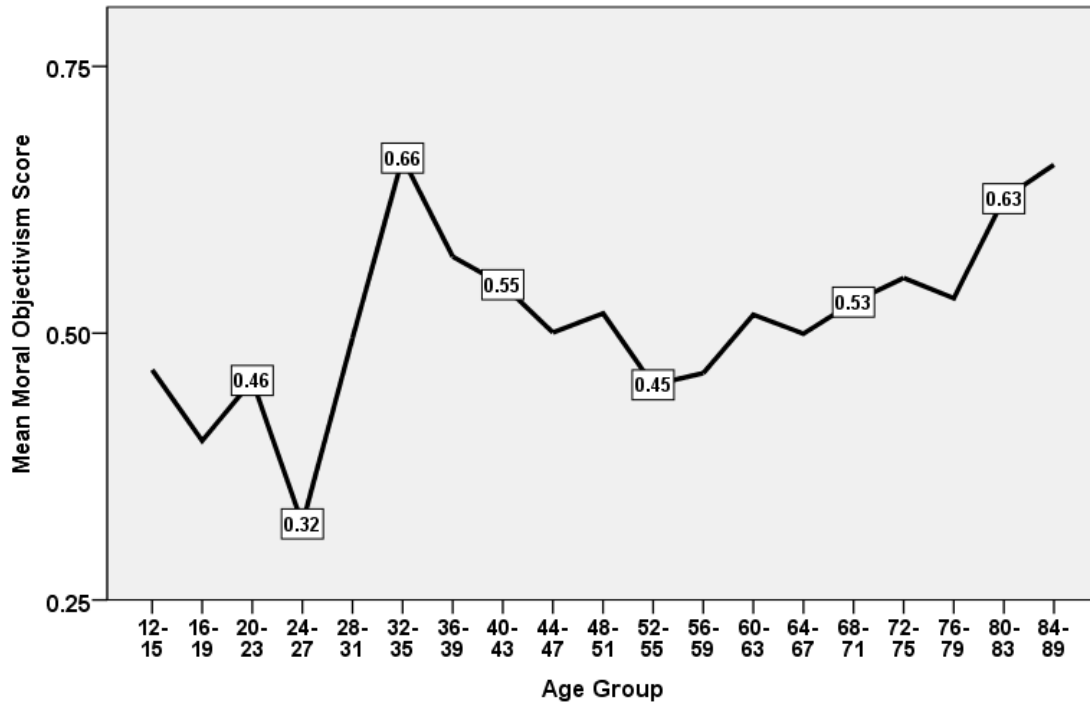


Figure 4. Proportions of participant objectivity attributions to ethical statements across different age groups.

Significant correlations were also observed between participants' objectivity scores in each domain and their average strength of opinion and the average amount of perceived disagreement they report within each domain (cf. Table 3). Having stronger opinions was positively correlated with higher objectivity scores in each domain, and greater perceived disagreement was negatively correlated with objectivity scores. Furthermore, higher objectivity scores in one domain were positively correlated with higher scores in the other domains. Average degree of perceived disagreement also negatively correlated with average strength of opinion in the factual ($r = -.10, p < .001$) and taste ($r = -.09, p < .001$) domains but not in the ethical ($r = -.01, ns$) domain.

	Ave. Strength of Opinion in that Domain	Ave. Perceived Disagreement in that Domain	Factual Objectivity Score	Moral Objectivity Score
Factual Objectivity Score	.15***	-.18***		
Moral Objectivity Score	.34***	-.08***	.21***	
Taste Objectivity Score	.25***	-.10***	.09***	.24***

Table 3. Correlations between participants' objectivity scores (in the factual, ethical, and taste domains), their average strength of opinion within each domain, and the average amount of perceived disagreement within each domain in Study 1.

Our age-related finding in the moral domain appears to be largely consistent with Kohlberg and Kramer's (1969) infamous findings on the 'sophomore retrogressor.' Because Kohlberg's scheme of moral development posited a pattern of "universal stepwise invariant sequences" that was irreversible, it could not handle (without modification) the fact that a sizable portion of the individuals in his longitudinal studies appeared to revert back to earlier stages of moral reasoning, even though they had allegedly already achieved higher stages. Kohlberg and Kramer (1969, 109) wrote:

That paradigm of the psychological study of the normal, the college sophomore, turns out to be the oddest and most interesting moral fish of all. Between late high school and the second or third year of college, 20% of our middle class sample dropped or retrogressed in moral maturity scores.... This drop had a definite pattern.... In their college sophomore phase, they kicked both their conventional and their Stage 5 morality and

replaced it with good old Stage 2 hedonistic relativism, jazzed up with some philosophic and sociopolitical jargon.¹⁶

Kohlberg and Kramer (1969, 116, 114-115) hypothesized that sophomore relativism may stem from the fact that “new and non-conforming patterns of thought and behavior are [being] tried out” and from “the breakdown of their expectations of a conventional moral world in the college environment.” According to Kohlberg, all of the individuals who engaged in non-objectivist moral thinking as they transitioned from high school to college later returned to objectivist thinking.¹⁷

After “a more careful analysis of the sense in which moral stage theory can tolerate regression” (provided by Turiel 1974), “a thorough revision of the stage-scoring system to reflect more directly the structure rather than the content of moral thought,” and “a further wave of longitudinal interviews on the subjects,” Kohlberg (1973, 190) eventually introduced an intermediate stage of moral development (stage 4½) in between his fourth and fifth stages and concluded that the data on retrogressors represented true forward development rather than backsliding on the part of the subjects. While Kohlberg was concerned with the development of normative ethical judgments, and we are concerned with metaethical judgments, what is most interesting for our purposes is that Kohlberg appears to have observed the same increase in non-objectivist thinking during early adulthood that we observed.¹⁸ This suggests that the effect we

¹⁶ One sophomore retrogressor offered the following take on the protagonist in the well-known Heinz dilemma, who breaks into a drugstore in order to steal an overpriced drug for his ailing wife: “He was a victim of circumstances and can only be judged by other men whose varying value and interest frameworks produce subjective decisions which are neither permanent nor absolute” (Kohlberg and Kramer 1969, 110).

¹⁷ On Kohlberg’s revised developmental scheme, interviewees came to be interpreted as reaching the stage of postconventional thinking at the approximate age of twenty-five at the earliest. Notice that this age corresponds roughly to the boundary we observed between non-objectivist thinking in ages 17 – 29 and more objectivist thinking in older participants.

¹⁸ Kohlberg later claimed that non-objectivism may even be necessary to full moral development: “We do... retain our conviction that some form of subjectivism or relativism is a necessary but not sufficient condition for movement to stage 5.... This is because a conception of liberal tolerance and universal rights represents a stage 5

have found is developmental in nature and is not a cohort effect (i.e., an idiosyncratic feature of individuals who happen to be college-aged now but that would not characterize college-aged individuals at other times) or one that is unique to the particular set of individuals in our study, although of course a longitudinal study would provide greater insight into this question.

Because moral objectivism scores were lower for participants in their twenties than for younger or older participants, we conducted a hierarchical regression analysis to see if the association between age and moral objectivism score was best modeled by a straight line or by a parabolic curve going from high to low to high again. Our analysis compared the amount of variance that can be explained using a linear model (with age as the predictor variable) to a nonlinear (quadratic) one that used age squared as the predictor. The R^2 value was .008 for the linear model and .009 for the nonlinear model (cf. Table 4 in the Appendix). However, adjusted R^2 value was .008 for both. Thus, the age-related differences we observed are not better captured by a curvilinear model than by a linear one.

We also performed a stepwise linear regression analysis in order to determine which of the factors we studied are primarily responsible for the differences in moral objectivism scores in our study. The predictor variables that were initially entered into the analysis were strength of opinion in the moral domain, average degree of perceived disagreement about ethical statements, age, gender, and parenthood. Moral objectivism score was the response variable. Age and parenthood failed to be preserved in the resultant regression model (cf. Table 5 in the Appendix). The adjusted R^2 value of the model was .13. In other words, strength of opinion, average degree of perceived disagreement, and gender explained approximately 13% of the variance in moral objectivism scores that we observed. Age was not by itself a significant predictor. Thus, it

principle that presupposed a questioning of the legitimacy or absoluteness of the culture's rule system (stage 4).” (Kohlberg and Higgins 1984, 440, 441)

appears that the correlation we observed between age and moral objectivism score is largely explained by the fact that older participants tended to have stronger opinions about ethical matters.

In stepwise linear regression analyses of participants' responses to factual and taste claims, average strength of opinion, average perceived disagreement, gender, and parenthood all contributed significantly to the resultant models (cf. Tables 6 and 7 in the Appendix). However, in neither model did age succeed in being a significant predictor.

Study 2

One limitation of Study 1 is that it features a geographically, educationally, and socioeconomically restricted class of participants. However, we think this limitation is mitigated by the findings of Kohlberg and Kramer (1969) discussed above and the findings of other researchers as well. William Perry (1970), for example, famously discovered a period of relativism or non-objectivism about epistemological matters during young adulthood that he claimed was both transitional and tied to the college experience. More recently, Wainryb and her collaborators (Wainryb et al. 2001; Wainryb et al. 1998) studied teenagers and undergraduates and found that participants' tolerance for beliefs, speech, practices, and people with whom they disagree increased with age during these life stages. These findings provide further support for the generalizability of our results.

Nevertheless, in an effort to demonstrate more directly that the results of Study 1 generalize beyond our largely middle-class participants from western New York, we partnered with researchers from China, Poland, and Ecuador and presented nearly one thousand participants from these countries with the same tasks in Study 1. Although most of the details of

this study have already been reported in an existing publication (Beebe et al. 2015), we report some new summary statistics here, along with new graphs depicting the key findings of this study.

In our cross-cultural study, all of our findings from Study 1 were replicated. Participants in each country attributed slightly more objectivity to factual statements than ethical ones and much more objectivity to ethical statements than taste claims. Factors such as strength of opinion and perceived degree of societal disagreement also modulated objectivity attributions. The gender-related finding of Study 1 was also found among Chinese participants, with females having slightly lower moral objectivism scores than males ($r = -.14, p < .01$), although no gender effects were observed among Polish or Ecuadorian participants. Most importantly for present purposes, however, is that the age-related finding of Study 1 replicated as well. Age was positively correlated with participants' moral objectivism scores in all three countries. In other words, older participants were significantly more likely to attribute objectivity to ethical statements than younger participants. Notably, the correlation coefficients in China ($r = .27, p < .001$), Poland ($r = .21, p < .001$), and Ecuador ($r = .17, p < .05$) were larger than those obtained in the U.S., even though the sample sizes were smaller.

When participants are sorted into age groups using four-year increments and the average moral objectivity score for each group is plotted, the result is depicted in Figure 5. A significant upward trend is clearly observed.¹⁹ By chance, a few age group categories were empty, resulting in the discontinuities observed. When the moral objectivism scores of participants from all three

¹⁹ N.B., the outlying value in the 72 to 75 Chinese age group consists of only one person's moral objectivism score. The extremely low values among 64 to 67 year old Polish participants and 68 to 71 Ecuadorian participants represent the moral objectivism scores of only two Polish and two Ecuadorian participants. Because of the small number of participants in each of these age bins, no conclusions about there being significant drops in moral objectivism scores at more advanced ages should be drawn. The overall upward trend in moral objectivism scores remains.

countries are plotted according to age, the result is the scatterplot represented in Figure 6. The correlation across all participants is .24 ($p < .001$). In sum, the most important finding of Study 1 generalizes beyond the limited set of participants used to a diverse set of participants from around the globe.

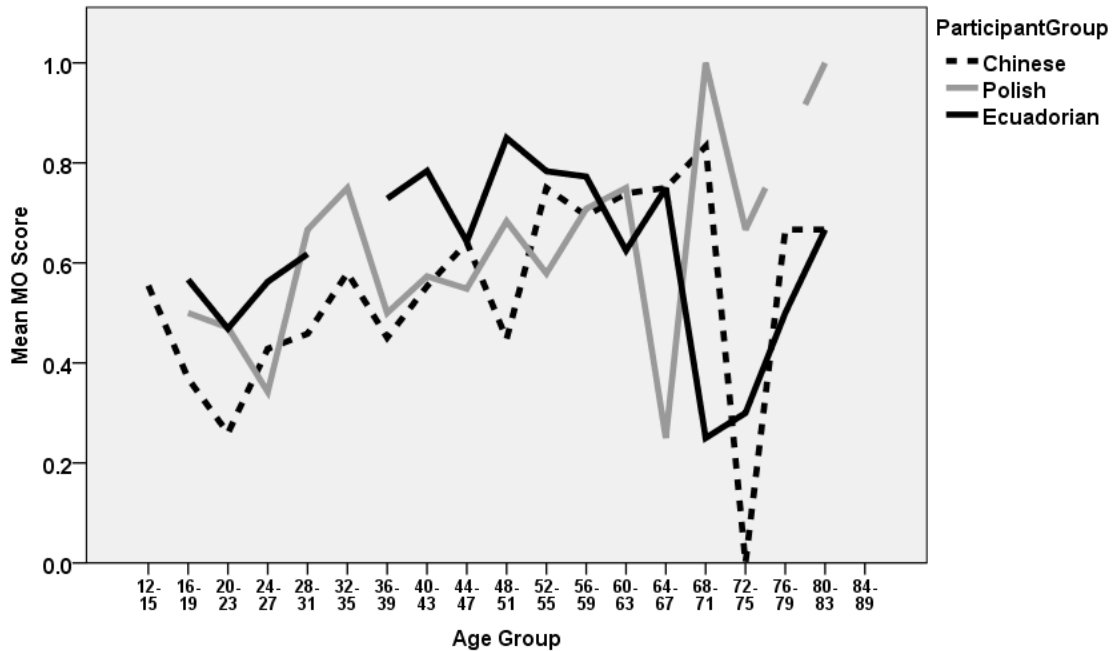


Figure 5. Average moral objectivism scores of Chinese, Polish, and Ecuadorian participants in age categories that are four years in width.

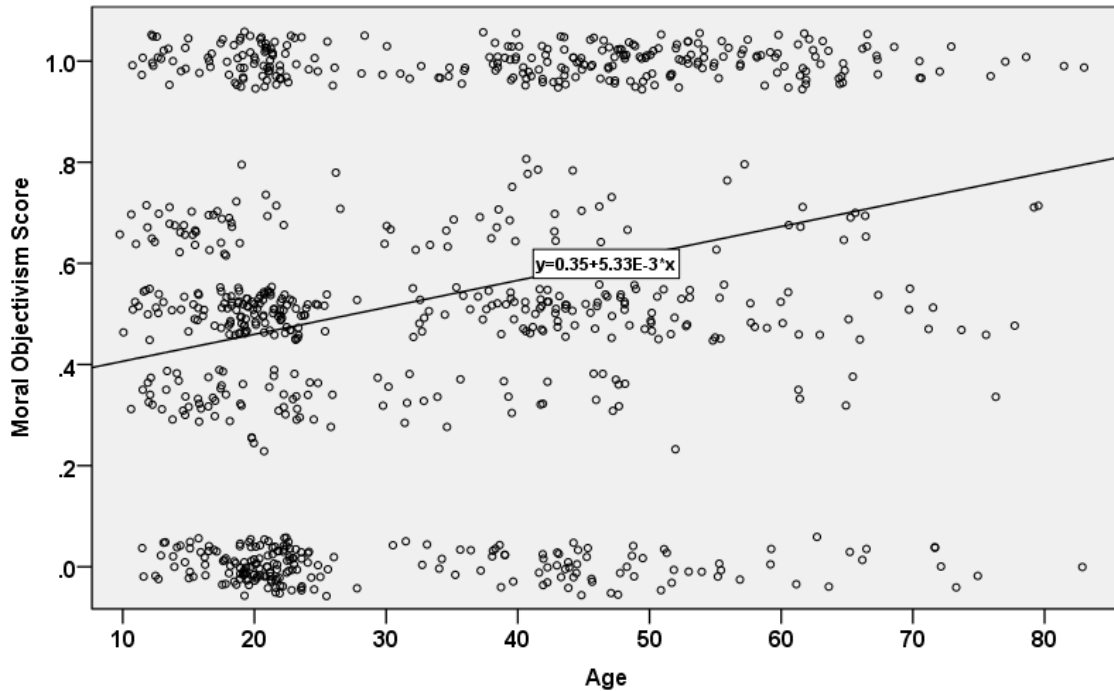


Figure 6. Scatterplot (with jittered data) showing the moral objectivism scores of Chinese, Polish, and Ecuadorian participants by age.

Stepwise linear regression analyses were performed on the ethical data from each of the three participant populations in Study 2, with average strength of opinion in the moral domain, average degree of perceived disagreement about ethical statements, age, and gender initially entered as predictor variables (cf. Tables 8 through 10 in the Appendix). Data on parenthood was not collected from these participants. Moral objectivism score was the response variable in each case. Among Chinese and Polish participants, age was preserved in the resultant regression model. Thus, in contrast to the regression model from Study 1, not all of our age-related findings can be explained by the fact that older participants have, on average, stronger opinions about ethical matters. For each of our international populations, average strength of opinion was the strongest predictor of participants' moral objectivism scores.

One possible explanation of our age-related findings is that they are cohort effects—i.e., that there is something about young adults today (rather than young adults in general) that explains them. Perhaps recent developments in education or modern societies have changed the way people growing up today view morality. This hypothesis predicts that the decreased moral objectivism we have observed in young adults will persist in those adults as they grow older. We admit that our results do not decisively rule out this hypothesis. However, we believe that the fact that our age-related finding was found in four different countries makes it less plausible than it would have been if we had data only from the United States.

3. Discussion

Because most of the moral psychological research on metaethical judgments has focused on undergraduate populations (with only a few studies of children), we set out to investigate the metaethical judgments of individuals across a significant portion of the lifespan—from seventh grade through the retirement years. We chose not to include participants younger than twelve years old because we wanted to use the same research materials across all age groups and thought that individuals younger than twelve would be less able to understand the materials correctly. Our results show that researchers who wish to make developmental or longitudinal claims about folk moral objectivism need to look beyond data from children and undergraduates.

Understanding the factors that lead some individuals to be more objectivist about morality than others and lead others to have different metaethical commitments across the lifespan will require much further investigation, and it is difficult to speculate at this point as to what these factors will be. Goodwin and Darley (2010) found that disjunctive reasoning ability—the tendency to “actively unpack alternative possibilities when reasoning”—is significantly correlated with a decreased tendency to attribute objectivity to ethical claims. They write:

Our current working hypothesis is that individuals who are inclined to think disjunctively on a problem-solving task, are also more inclined to generate alternative reasons why another person might doubt or disagree with an ethical belief that they themselves hold. (Goodwin and Darley 2010, 176)

This finding suggests that there is an important cognitive component underlying individual differences in metaethical objectivism. In our own research, we have begun to investigate an array of personality differences (and differences in personality traits across the lifespan) that might explain our age-related findings. However, it is too early to tell which factors will be explanatory significant.

Regardless of what the correct explanation of our demographic findings is, we believe that they pose an interesting challenge to the received view among philosophers concerning the metaethical commitments of ordinary individuals. Above we saw that philosophers tend to represent folk metaethics in the following fashion:

[I]t is a platitude that our moral judgements at least purport to be objective.... Thus if A says ‘It is right to ϕ in circumstances C’ and B says ‘It is not right to ϕ in circumstances C’ then we take it that A and B disagree; that at most one of their judgements is true... (Smith 1994, 84)

The (often unspoken) assumption behind this view is that the folk take a straightforwardly objectivist approach to every moral issue in every context—and indeed do so in every culture and have done so in every era. We contend that our results (and those of Goodwin and Darley 2008 and Sarkissian et al. 2011) are not what we would expect if this assumption were true. It is true that participants gave strongly objectivist responses to some ethical claims—particularly

those that involved inflicting unwanted and unjustified harm upon other individuals. However, the broader picture suggested by our data differs significantly from the received view.

We acknowledge that the tools we have used in the present investigation have important limitations but maintain that our data are more easily explained if the assumption of full or complete moral objectivism among the folk is false. The question of the nature and extent of folk moral objectivism is a straightforwardly descriptive or empirical matter. However, philosophers (at least in the analytic tradition) too often frame debates or argue against opponents by contending that their moral objectivist or realist views are commonsensical and widely shared and hence enjoy a kind of default justificatory status without possessing sufficient (or indeed any) supporting evidence for their claims. The results of our studies do not suggest anything like full or complete moral objectivism among the folk. And if there is a kind of objectivism to be found there, we believe it will involve a significantly greater degree of variability and flexibility than philosophers' armchair depictions contain.

Although the investigation of folk moral objectivism was the aim of our study, it is important to reiterate that we observed an age-related effect for participants' attributions of objectivity to factual claims as well. This finding calls for further investigation. Important questions arise from this finding and the fact statements (2) and (5) in Table 1, which concern global warming and human evolution and are highly controversial within the United States, received relatively low objectivity ratings. It seems to us that the most plausible Task 2 response for global warming skeptics and creationists to make to these statements would be to attribute objectivity to them. Creationists believe it is objectively false that humans evolved from more primitive primate species. If global warming skeptics either believe that global warming is not caused primarily by human activity or doubt that we can ever know with certainty one way or the

other, it still seems that the most reasonable response for them is to think there is nonetheless a fact of the matter about the issue. But this is not what we find. Relatedly, participants were not strongly inclined to think there was a fact of the matter about whether or not Julius Caesar drank wine on his twenty-first birthday.

There are at least three possible explanations of these findings that we think deserve further investigation. The first is that any participant who offers a non-objectivist response to factual matters that are obviously objective is deeply confused, and this confusion prevents them from having a false (because incoherent) non-objectivist position. Nichols (2004) considers this possibility and excludes from his analysis of metaethical judgments any participant who gave a non-objectivist response to a factual statement about the physical world. However, despite the widespread endorsement of metaphysical objectivism within contemporary analytic philosophy, we think there is a very real possibility that ordinary individuals are non-objectivist about “factual” matters. Consider the prevalence of various forms of idealism in the history of philosophy and the popularity of Continental philosophy among undergraduates or the non-academic public generally. Much to the chagrin of analytic philosophers, the average non-philosopher who says she is interested in philosophy rarely means to be expressing an interest in problems such as perdurantism, the Gettier problem, and the sense and reference of natural kind terms. This kind of person is most often interested in the existentialists and other Continental philosophers whose outlooks are decidedly non-objectivist. Thus, a second explanation of participants’ non-objectivist responses to “factual” matters is that, rather than being confused, they are accurately expressing non-objectivist metaphysical intuitions. Because we think understanding folk metaphysical objectivism or non-objectivism is as important as understanding

folk metaethical objectivism or non-objectivism, we have begun to empirically investigate the former set of issues and hope to report on these findings soon.

A third possibility that we think is worthy of further investigation concerns the degree to which our preferred measure of objectivism is sensitive to things other than objectivism. We do not believe that all of the participants in our study who were led to choose a non-objectivist response to a highly contested statement did so because they believed that pervasive disagreement always indicates there is no fact of the matter. We think this is likely to be something that (perhaps unconsciously) influences participants' judgments some of the time. But we do not think it constitutes the whole story. Therefore, in our follow-up studies of folk metaphysical objectivism, we are trying to develop probes that are capable of distinguishing when participants are expressing judgments about mind-independent objectivity and when they are expressing opinions about other metaphysical or epistemological matters.

In any case, we believe that our study shows that folk metaethical commitments are more complex and variable than many armchair philosophers have envisioned. We expect the investigation of folk metaphysical objectivism to reveal the relevant phenomena to be multi-dimensional and diverse as well.

Appendix

		<i>B</i>	<i>SE B</i>	β
Model 1	Constant	.41	.02	
	Age	.002	.000	.09
Model 2	Constant	.44	.04	
	Age	-.001	.002	-.03
	Age squared	2.45E-5	.000	.12

Table 4. Coefficients from hierarchical regression analysis on ethical data from American participants in Study 1. Dependent variable: moral objectivism score. Both models were statistically significant. Linear: $F(1, 2519) = 21.05, p < .001$. Nonlinear: $F(2, 2518) = 11.18, p < .001$. Adjusted R^2 for Model 1 = .008. Adjusted R^2 for Model 2 = .008.

		<i>B</i>	<i>SE B</i>	β
Step 1	Constant	-.15	.04	
	Ave. Strength of Opinion	.26	.01	.35
Step 2	Constant	-.06	.04	
	Ave. Strength of Opinion	.26	.01	.35
	Ave. Perceived Disagreement	-.03	.01	-.08
Step 3	Constant	-.06	.04	
	Ave. Strength of Opinion	.26	.01	.35
	Ave. Perceived Disagreement	-.02	.01	-.07
	Gender	-.03	.01	-.05

Table 5. Coefficients from stepwise regression analysis on ethical data from American participants in Study 1. Dependent variable: moral objectivism score. Excluded variables: age and parenthood. The models at each step were significant. Step 1: $F(1, 2366) = 325.66, p < .001$. Step 2: $F(2, 2365) = 171.33, p < .001$. Step 3: $F(3, 2364) = 116.54, p < .001$. Adjusted R^2 for Step 1 = .121. Adjusted R^2 for Step 2 = .126. Adjusted R^2 for Step 3 = .128.

		<i>B</i>	<i>SE B</i>	β
Step 1	Constant	.80	.03	
	Ave. Perceived Disagreement	-.07	.01	-.18
Step 2	Constant	.57	.04	
	Ave. Perceived Disagreement	-.06	.01	-.17
	Ave. Strength of Opinion	.09	.01	.14
Step 3	Constant	.62	.04	
	Ave. Perceived Disagreement	-.06	.01	-.17
	Ave. Strength of Opinion	.09	.01	.13
	Gender	-.06	.01	-.08
Step 4	Constant	.60	.04	
	Ave. Perceived Disagreement	-.06	.01	-.17
	Ave. Strength of Opinion	.08	.01	.13
	Gender	-.06	.02	-.08
	Parent	.03	.02	.04

Table 6. Coefficients from stepwise regression analysis on factual data from American participants in Study 1. Dependent variable: factual objectivism score. Excluded variable: age. The models at each step were significant. Step 1: $F(1, 2336) = 79.90, p < .001$. Step 2: $F(2, 2335) = 65.23, p < .001$. Step 3: $F(3, 2334) = 49.51, p < .001$. Adjusted R^2 for Step 1 = .033. Adjusted R^2 for Step 2 = .052. Adjusted R^2 for Step 3 = .059. Adjusted R^2 for Step 4 = .060.

		<i>B</i>	<i>SE B</i>	β
Step 1	Constant	-.08	.02	
	Ave. Strength of Opinion	.10	.01	.25
Step 2	Constant	-.06	.02	
	Ave. Strength of Opinion	.11	.01	.25
	Gender	-.05	.01	-.09
Step 3	Constant	-.03	.02	
	Ave. Strength of Opinion	.10	.01	.25
	Gender	-.06	.01	-.10
	Parent	-.05	.01	-.08
Step 4	Constant	.05	.03	
	Ave. Strength of Opinion	.10	.01	.24
	Gender	-.05	.01	-.09
	Parent	-.05	.01	-.08
	Ave. Perceived Disagreement	-.02	.01	-.08

Table 7. Coefficients from stepwise regression analysis on taste data from American participants in Study 1. Dependent variable: taste objectivism score. Excluded variable: age. The models at each step were significant. Step 1: $F(1, 2335) = 150.50, p < .001$. Step 2: $F(2, 2334) = 85.97, p < .001$. Step 3: $F(3, 2333) = 63.27, p < .001$. Step 4: $F(4, 2332) = 51.39, p < .001$. Adjusted R^2 for Step 1 = .060. Adjusted R^2 for Step 2 = .068. Adjusted R^2 for Step 3 = .074. Adjusted R^2 for Step 4 = .079.

		<i>B</i>	<i>SE B</i>	β
Step 1	Constant	.07	.06	
	Ave. Strength of Opinion	.24	.03	.32
Step 2	Constant	-.05	.07	
	Ave. Strength of Opinion	.22	.03	.29
	Age	.005	.001	.24

Table 8. Coefficients from stepwise regression analysis on ethical data from Chinese participants in Study 2. Dependent variable: moral objectivism score. Excluded variables: average perceived disagreement and gender. The models at each step were significant. Step 1: $F(1, 412) = 47.44, p < .001$. Step 2: $F(2, 411) = 39.03, p < .001$. Adjusted R^2 for Step 1 = .101. Adjusted R^2 for Step 2 = .156.

		<i>B</i>	<i>SE B</i>	β
Step 1	Constant	.13	.10	
	Ave. Strength of Opinion	.21	.05	.24
Step 2	Constant	.40	.12	
	Ave. Strength of Opinion	.21	.05	.24
	Ave. Perceived Disagreement	-.08	.02	-.20
Step 3	Constant	.31	.13	
	Ave. Strength of Opinion	.18	.05	.20
	Ave. Perceived Disagreement	-.08	.02	-.19
	Age	.004	.002	.14

Table 9. Coefficients from stepwise regression analysis on ethical data from Polish participants in Study 2. Dependent variable: moral objectivism score. Excluded variable: gender. The models at each step were significant. Step 1: $F(1, 284) = 17.67, p < .001$. Step 2: $F(2, 283) = 15.66, p < .001$. Step 3: $F(3, 282) = 12.70, p < .001$. Adjusted R^2 for Step 1 = .055. Adjusted R^2 for Step 2 = .093. Adjusted R^2 for Step 3 = .110.

		<i>B</i>	<i>SE B</i>	β
Step 1	Constant	.28	.11	
	Ave. Strength of Opinion	.15	.05	.23

Table 10. Coefficients from stepwise regression analysis on ethical data from Ecuadorian participants in Study 2. Dependent variable: moral objectivism score. Excluded variables: average perceived disagreement, age, and gender. The model was significant: $F(1, 178) = 10.15, p < .01$. Adjusted $R^2 = .049$.

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