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# Children's Normative Evaluations of Pro- and Anti-Autonomy Decisions

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#### Abstract

Autonomy is a basic psychological need, but are there circumstances under which people think it is morally okay to override someone's autonomy? To examine this question, this study investigated 4- to 9-year-old children's (n = 113) and adults' (n = 100) moral evaluations (e.g., 'right' and 'fair') of caregivers overriding a child's autonomy in situations which explicitly benefited (*test* condition) or did not benefit (*baseline* condition) the child. Across the two conditions, participants evaluated both the anti-autonomy (i.e., 'paternalistic' during the *test* condition) and the pro-autonomy decisions. We found that children evaluated the pro-autonomy decisions more positively than the anti-autonomy decisions in the *baseline* condition, whereas they produced the opposite pattern in the *test* condition. The adults' evaluations displayed parallel results. These findings suggest that when deciding whether personal autonomy should be overridden, children consider the welfare of the individuals involved, and they do so in a manner similar to their adult counterparts. These results have theoretical and practical implications for how to be paternalistic in a morally justified way.

Keywords: autonomy, paternalism, normative values, morality

## Children's Normative Evaluations of Pro- and Anti-Autonomy Decisions

Throughout our history, we as a species have had to effectively find ways to help each other even - and perhaps especially - when people differ in how they want to approach a situation. Whether such disagreements stem from ignorance, stubborn opposition, or even a simple difference in personal preference, we as a people consistently endeavor to help each other, even when it goes against another's direct wishes. When one goes against another's wishes to assist them, thereby impinging upon their autonomy for a greater cause, we would classify such an action as 'paternalistic' (Dworkin, 2020). Though a great deal is known about human prosociality, much less is known about its interaction with autonomy, especially among children. As such, there is still much to be unveiled about children and adults' judgments and tendencies regarding prosocial decisions that undermine one's autonomy.

#### What is Paternalism?

Though the precise use of 'paternalism' varies across the literature and disciplines, we might best understand it as exerting one's will over another for the perceived benefit of that other (Dworkin, 2020). There is an important distinction between 'soft' and 'hard' paternalism; the former represents a paternalism that is enacted for a subject who is ignorant and would otherwise agree with the paternalistic agent, whereas the latter regards a paternalism which is put upon a knowing subject who willfully chooses a path which the agent disagrees with (Dworkin, 2020). Matters of paternalism are highly relevant to notions of morality, well-being, and 'normativity' (i.e., regarding what one 'should' or 'ought' to do within some framework of value) in general, and its inherent nature of overriding others' autonomy and wishes makes it quite normatively dubious (Dworkin, 2020).

From a policy perspective, it would seem that people tend to feel that established rules grate upon their personal will, even if they fundamentally agree with such guidelines, and they are resultantly more likely to combat these perceived impediments to their autonomy (Arad & Rubinstein, 2018; Blumenthal, 2007; Brehm, 1966). One suggestion to combat this occurrence was to prioritize policies which employ 'emotional paternalism,' rather than a more general paternalism, as this would hopefully help to maintain a lower frustration toward an institution's rules while still beneficially assisting people during some of their most challenging moments: when one is emotionally overwhelmed and commits to something of ill-value which they otherwise would have stayed away from due to their proper reasoning (Blumenthal, 2007). Furthermore, research has found that citizens tend to prefer when paternalistic policies are transparent in their manipulations as well as not forcibly enacted upon them (Arad & Rubinstein 2018). For instance, citizens tended to prefer transparent policies over ones which attempted to unconsciously manipulate them (e.g., manipulative sensory cues), and they preferred both soft interventions and non-government policies to their alternatives; in fact, respondents were often willing to sacrifice the effectiveness of a policy if it would avoid perceived government overreach (Arad & Rubinstein 2018). Additionally, Haybron & Alexandrova (2013) provided an intriguing analysis of paternalism within the scope of policy as they note that policies are technically paternalistic by their nature; after all, any policy or law is emplaced to set societal barriers on what counts as proper, legal conduct regardless of whether an individual's happens to agree with such rules. In noting that policies are inherently paternalistic, the authors argued that policymakers ought to endeavor to create policies which respect their subjects and take the preferences, values, and priorities of their citizens seriously (Haybron & Alexandrova, 2013).

There's a great variety of competing theories surrounding whether paternalism is ever permissible, and, if so, under what circumstances. Some theories propose that paternalism, of any sort, is something that cheapens one's experience and well-being as it overrides their valuable autonomy and hampers one's ability to solely motivate themself toward good and proper action (Cholbi, 2018). Such a framework might prefer softer paternalistic interventions, though even softer versions might be seen to erode one's potential for personal growth as they must instead bend to the whims of some impersonal, external force (Cholbi, 2018). Many other theorists find themselves to be cautiously accepting of paternalism as long as it maintains certain standards. In particular, one theory holds that paternalistic interventions should only be enacted when they assist someone who is not acting in line with proper rational consideration and is at risk of losing their capacity for - or regular ability to maximize - normative goods (Scarre, 1980). Regarding child-focused paternalism, this feeling of cautious permission persists as Mullin (2014) wrote that paternalistic interventions can only be justified when (1) they are intended for the child's own good, (2) the child themself lacks the resources or ability to make a good decision, (3) they respect the child's capacities, (4) they acknowledge the adult agent's potential limitations, and (5) they do not hinder the child's ability to further develop their autonomy. Other theorists find that paternalism offers the opportunity for immense benefits and assistance, as follows from its intended purpose, and they find that such paternalism equally permissible and good for children as adults (Kalle, 2018; Godwin, 2020). Truly, paternalism is viewed differently from a variety of perspectives, but the perspectives seem to agree that such interventions may allow for useful benefits while creating distrust and discontent for the interventions' subjects.

#### **Autonomy and Paternalism in Psychology**

Within the scope of psychological research, we find a great mix of results regarding the effectivity, and enjoyability, of paternalism and interventions which go against one's autonomy. Intriguingly, Ambuehl et al., (2019) tested participants in a situation in which they were the 'choice architects' and could assist 'choosers' by preemptively intervening and selecting which choices would be available to pick from. Across multiple different helping strategies, participants tended to paternalistically omit choices for the 'choosers' that they themselves did not believe to be correct; due to this, it would seem that the participants either felt that others must share their opinion, or they may have felt their viewpoint was simply superior to others' (Ambuehl et al., 2019). Given this, it would seem that people tend to be rather paternalistic when attempting to guide others, and this trend persists when investigating parents' interactions with children. In a recent study by Kiessling et al. (2021), the authors provided children with a delayed-gratification task and found that a majority of the children's parents were willing to pay money to override their children's decisions. Perhaps unsurprisingly, the authors found that such parental interference also predicted more intense parenting styles, and they noted that such interference seemed to be especially effective when employed for children who were already 'better off' (e.g., they had parents with authoritarian parenting styles, their parents were generally more patient, and they came from wealthy families; Kiessling et al., 2021). As such, it would further appear that paternalism is commonly implemented, though its generalized usefulness is up for debate. As for the child's perspective in paternalistic situations, Bao & Lam (2008) found that Chinese children tended to care less about their freedom of choice if they were more socioemotional connected with their parents; however, the authors found that autonomy still mattered to children, and it seemed as though children who felt closer to their parents would simply feel that they lived with autonomy even if, in reality, they did not (Bao & Lam, 2008).

While this perhaps speaks on a subjective level of children's perception on their autonomy, Wang et al. (2012) found that Chinese children's level of realized autonomy did, in fact, seem to correspond with their academic achievement. Though Chinese children may prioritize their autonomy if they feel close to their parents, Wang et al. (2012) discovered that parents' tendencies to psychologically control - and restrict the autonomy of - their children tended to be associated with worse school performance. In contrast, children's better school performance was associated with parents who supported their socialization and personal autonomy, leading the authors to advocate for parenting strategies that were less controlling and restrictive as they seemed to hamper adolescent development (Wang et al., 2012).

Moving away from family-specific situations, Kassirer et al. (2020) found that American patients tended to lack appreciation for doctors who did not act paternalistically, despite our society's general trend to praise pro-autonomy behaviors. In particular, when doctors provided decisional autonomy to their patients instead of paternalistic advice, these respondents tended to be less likely to recommend the doctors, they tended to pay the doctors less money, and they tended to ascribe less competency to such doctors. Importantly, the patients seemed to prefer a more paternalistic answer due to the decision being perceived as rather difficult (Kassirer et al., 2020). Despite this, Thompson et al. (2022) found that, although both Mexican and White American patients tended to view their doctors as being paternalistic, Mexican patients hold their paternalistic doctors in an intensely positive regard whereas the White American patients held their paternalistic doctors in an intensely negative regard. Furthermore, Mexican patients tended to view American physicians as being rather pro-autonomy, and Mexican respondents tended to particularly appreciate paternalistic physicians whereas White American respondents tended to view paternalism as a problematic behavior amongst physicians (Thompson et al., 2022). Taken

together, it appears that Americans tend to be predisposed against paternalism, yet they perhaps still understand and value the potential benefits that it can provide. In a similar vein of mixed-messaging amongst participants with their explicit and implicit values, Lupoli et al., (2018) found that participants tended to appreciate beneficial lying behavior while also seeking to penalize paternalistic lies. The authors noted that the participants tended to view paternalistic liars as (1) not being well-intentioned, (2) violating their autonomy, and (3) inaccurately predicting their preference; intriguingly, the participants' distaste with paternalistic lying also persisted even if they received their desired outcome due to the lie. In fact, the only way to diminish some - but not all - of the participants' ire toward paternalistic lies was for the deceiver to directly elaborate on their good intentions. Truly, it would seem that many people, especially Americans, harbor intense and conflicting feelings about paternalism.

Research has also found that individuals experience 'psychological reactance,' which is when an individual is motivated to regain their freedom when such freedom has been reduced or threatened (Brehm, 1966). Psychological reactance even seems prevalent in young children as young as 2-years-old, as boys tended to seek objects that were placed behind physical barriers only in the case where the barrier was large and the two available objects were dissimilar (Brehm & Weinraub, 1977). Though the others did not find the same occurrence for girls, it would still seem as though young children have the capacity, and even the propensity, to more highly value things which are blocked from them. More recently, Van Petegem et al. (2015) investigated adolescents' defiance against their parents, and they found that these children were likely to increase their problem behavior and elicit further reactance after experiencing controlling parental behavior.

Overall, it would seem that we hold a variety of mixed opinions on paternalism, and such

feelings also greatly vary across cultures. In some cases, paternalism appears to be helpful, and in others it appears to be quite harmful to one's flourishing. Similarly, sometimes paternalism is enjoyed and valued, whether explicitly or implicitly, and other times it is vilified and fought against. Thus, greater attention and research is needed to fully understand this unique phenomenon as its nuances, patterns, and conclusions do not yet seem to be firmly settled within the literature.

#### **Pro-Sociality and Morality in Children**

Outside of matters of paternalism and autonomy, researchers are also interested in whether humans are drawn to support each other. Some research has found that young children are rather poor helpers, especially when such helping involves greater cognitive resources and interpersonal awareness (e.g., empathetic comprehension of others' needs) (Waugh & Brownell, 2017). However, research has displayed a general trend in children becoming increasingly more prosocial as they develop (Waugh & Brownell, 2017; Warneken, 2013), though there is a lingering question of how genuine and authentic such prosociality tends to be. For instance, researchers have found that children, even by the age of 8, tend to instrumentalize their prosocial behaviors in order to gain reputational benefits and increased opportunities to favorably engage with other children (Herrmann, Engelmann, & Tomasello, 2019). Additionally, studies have found that even very young children may spontaneously help others with accidents that go unnoticed (Warneken, 2013), and young children eagerly and happily engage in mutually-beneficial, prosocial behavior once it has been properly modeled for them (Cortes Barragan & Dweck, 2014). Although it would seem that some children utilize prosociality instrumentally as a tool, especially as they grow older and more intelligent, it also appears that children have a natural capacity to help others.

An important aspect of morality, especially as it may pertain to the case of anti-autonomy paternalistic action, is that of deontology (i.e., a moral framework which values rules and processes) and consequentialism (i.e., a moral framework which values end-results and consequences). Certainly, if children tended to be highly deontological in their viewpoints, then we might reasonably expect them to dislike paternalism as it naturally overrides others' autonomy for some justified end-result. Alternatively, if children tend to be rather consequentialist in their views, then we might reasonably expect them to prize paternalism as a useful means for theoretically attaining valuable ends. In terms of deontology, the available research displays that young children tend to correctly ascertain harmful intentions and avoid helping both successful intentional-harmers and failed intentional-harmers (Vaish et al., 2010). The authors found that the children helped the successful intentional-harmer less than the failed intentional-harmer, which does show that children also appreciate aspects of consequentialist moral values, yet their steady assistance toward accidental-harmers displays that they seem to be largely deontological in this situation. Though it seems that even young children have the capacity to be largely deontological, other research has found that young children's social judgments can be largely influenced by consequences rather than by intentions; however, over just a few years of development, children's prioritization of consequentialism appears to fade as they come to value both consequentialist and deontological reasoning (Costanzo et al., 1973).

## Young Children's Engagement with Autonomy and Paternalism

A final research question regards the comparison between children and adults' paternalistic interventions. In a study conducted by Marette et al. (2016), they provided children and their mothers with an array of healthy and unhealthy food to take for themselves and give to their experimental partner. The authors found that children tended to act 'paternalistically,'

providing their mothers with more healthy food than they chose for themselves, whereas their mothers tended to act 'indulgently' by providing their children with more unhealthy snacks than they selected for themselves. Additionally, upon receiving nutritional information on the available food options, children tended to select more healthy food for themselves than their mothers planned to provide for them, demonstrating that children have the capacity to recognize and select for objective health benefits to a degree that parents might not suspect (Marette et al., 2016). Additionally, research with young children has shown that there is an important normative development between the ages of 4-7 in which the younger children tend to ascribe positivity to desire fulfillment and negativity toward rule-following, whereas the older children aligned with adults in viewing rule-following positively (Lagattuta, 2005); however, this only seemed to occur when such children evaluated situations that involved morally-relevant rules as opposed to one's personal identity or preferences (Lagattuta et al., 2008). Furthermore, under the contexts of considering the future or other characters' feelings, younger children (e.g., 4- to 5-years-old) displayed an apt understanding that how one feels can be at odds with what one should do (e.g., it can feel good to inhibit desires; Lagattuta, 2008). A separate trio of studies, by Yang & Frye (2018), found that 4- to 5-year-olds tended to predict characters' behaviors aligning with basic desire fulfillment whereas 6- to 7-year-olds tended to predict behaviors that aligned with overarching goals and incorporated more surrounding motivational information. Taken altogether, it would seem that there is a significant shift from prioritizing one's basic desires to focusing on greater goals and rules over the span of ages 4 to 7.

Though children develop an increasing prioritization toward moralistic rule-following over mere desire-fulfillment, even very young children may be naturally predisposed to paternalistically intervening for others. A study by Hepach et al. (2020) investigated the helping

behaviors of children and chimpanzees and found that both tended to provide prosocial assistance, but only the children tended to provide paternalistic help (i.e., only children provided the requester with what they actually need, as opposed to whatever they requested). Additionally, children as young as the age of 3 have been shown to be adept at understanding others' overarching intentions within a task, and they have displayed a complex capacity to assist others while overriding requests for items which do not truly help with the experimenter's task (Martin & Olson, 2013). Intriguingly, 5-year-olds have been shown to provide paternalistic assistance to other children when such help aligns with their own desires, though they do not display a tendency for paternalistic help when the intervention does not appear to be desirable (Martin et al., 2016); as such, one might see this as an example of children balancing the values of subjective desire and objective benefits, or it may be a case of children failing to help when such methods do not align with their own wants. Overall, it seems that even very young children seem to be inclined toward paternalistic help, though there may also be a limit to when, and to what degree, children are willing to paternalistically help others.

## **Present Study**

Through our preregistered study, we investigated children and adults' normative judgments regarding caretakers' pro- and anti-autonomy decisions. Our primary research interests focused on 4- to 9-year-old children as this age group has displayed increasing degrees of positivity toward paternalism and overarching rule-following over this span of ages. For our test condition, we utilized situations involving 'soft' paternalism (i.e., paternalism that is enacted upon an ignorant subject who otherwise shares the paternalistic agent's values). This study serves to highlight the normative judgments of both children and adults regarding matters of autonomy

and paternalism, and it allows for a greater understanding of our paternalistic and prosocial tendencies. All variables and manipulations are reported, and this study was IRB approved.

#### Methods

## **Participants**

We preregistered to recruit at least 100 4-9-year-old children via the Center for Early Childhood Research (CECR) database from the University of Chicago. We had a final sample of 113 children ( $M_{Age} = 7.15$ , SD = 1.50, range = 4.50 to 9.42; male = 55, female = 58; White = 61, Black or African American = 12, Hispanic = 7, Asian = 19, other = 14). An additional 22 participants were tested but excluded due to distractions in the environment, child inattention, and experimental errors. To explore the developmental endpoint, we also collected a sample of 100 adult participants from Amazon Mechanical Turk (MTurk) (not preregistered;  $M_{Age} = 38.64$ , SD = 11.12, range = 18 to 72; male = 64, female = 33, other = 2, prefer not to say = 1; White = 66, Black or African American = 10, Asian or Pacific Islander = 14, Latino or Hispanic = 5, mixed = 4, other = 1).

## **Experimental Design and Procedure**

Participants completed a baseline condition and a test condition in a randomized order. Each participant was randomly assigned to respond to the two conditions in two different contexts, a food context (choosing between different snacks) and a playground context (choosing between two playgrounds). Each participant was randomly assigned to see one condition involving all male characters while the other condition presented all female characters. In the baseline condition, the participants read a story involving a child protagonist and two caretakers, all of whom are the same gender. The protagonist requested a desired option (e.g., eating a snack in green color) over an alternative option (e.g., eating a snack in orange color). One caretaker

decided to satisfy their desire (i.e., pro-autonomy decision) whereas the other caretaker chose the alternative option (i.e., anti-autonomy decision). Participants were asked one attention check about the protagonist's desired option before proceeding. All but four children answered it correctly at first pass, and all children passed within one round of feedback.

The test condition is the same, except there is additional information about the objective benefits (e.g., healthiness), or lack thereof, for the options. In particular, the anti-autonomy decision is more objectively beneficial for the protagonist than the pro-autonomy decision (e.g., the orange snack is healthier than the green snack). To make it clear that the situation tested for 'soft paternalism,' we emphasized that these objective benefits aligned with the protagonist's underlying desires and values despite them being ignorant of which option held greater *objective benefits* (e.g., the child wants to be healthy but does not know that the orange snack is healthier). Similar to the baseline condition, participants were asked one attention check about the protagonist's desired option before proceeding. They were also asked another check question about the objective benefits of the options. Most children (88%) passed these checks at first pass, and all children passed the checks with feedback. The full scenarios and testing stimuli were presented in supplemental materials.

Within each condition, participants rated each caretaker's decision separately in a randomized order. For each caretaker, participants were asked two *moral evaluation* questions about whether the decision is 1) "right or wrong" and 2) "fair or not fair," followed by two *subjective attribution* questions on whether the decision makes the protagonist 3) "like or not like this caretaker" and 4) "happy or not happy." Participants were asked to answer the dichotomous questions first, followed by indications of degree (a tiny bit, a little, or a lot), resulting in a 6-point Likert scale (1=very negative, 6= very positive).

In each condition, after participants finished the ratings, they were presented with the two caretakers' decisions again, and asked to respond in a forced-choice manner in terms of the moral evaluations and subjective attributions. Participants also responded to one additional final question of "which caretaker's decision would YOU make for [the protagonist]?". These forced-choice questions were for exploratory purposes and were not preregistered.

Each child participant was tested individually via Zoom within a quiet environment at their home. Prior to beginning the sessions, we requested that the parents try to ensure that their technical devices were functioning normally, that there was minimal background noise, and that all other distractions were removed. We allowed parents to remain in the room with their child, but we requested that they not talk to their child nor make comments during the study. We provided warm-up trials for the children to become better acquainted with our testing platform (e.g., we presented the children with pairs of stimuli and they verbally acknowledged which stimuli our cursor was hovering over). The experimental sessions lasted less than 10 minutes, and all of the materials were displayed from Qualtrics. For our adult participants, they were presented with a version of the study that was better tailored toward adults (i.e., there were minor adjustments to the consent form and certain phrasing to foster greater clarity during the experiment), they were requested to complete the study in one sitting, and they were available to participate in the study independently with their laptop from their location of choice.

Beyond our primary experimental design, we also collected demographic information from our participants. For our child participants, prior to beginning the experiment, we collected information on their age, gender, race, the education of their parent(s), and their annual family income. For the adult participants, we collected information about their age, gender, and race at the conclusion of the experiment.

#### **Analysis and Results**

#### **Adult Data**

#### Moral Evaluations

We conducted a linear mixed-effects model using decision type (i.e., pro-autonomy vs. anti-autonomy decision), condition (i.e., baseline vs. test condition), and their interaction to predict the adult participants' moral evaluations, with participant ID included as a random effect. According to the "drop 1" function in R, we found that the interaction terms significantly improved model fit,  $\chi^2(1, n = 100) = 943.95$ , p < .001. We then conducted follow-up linear models to examine the effect of decision type for each condition separately. For the *baseline* condition, participants evaluated the anti-autonomy decision ( $M_{Anti} = 2.9$ ,  $SD_{Anti} = 1.2$ ) less positively than the pro-autonomy decision ( $M_{Pro} = 5.6$ ,  $SD_{Pro} = 0.8$ ), B = -2.71, SE = 0.10, p < .001. In contrast, for the *test* condition, the adult participants evaluated the anti-autonomy decision ( $M_{Anti} = 5.2$ ,  $SD_{Anti} = 1.1$ ) more positively than the pro-autonomy decision ( $M_{Pro} = 3.5$ ,  $SD_{Pro} = 1.6$ ), B = 1.64, SE = .14, P < .001. These data can be seen in Figure 1.

## Subjective Attributions

We again conducted a linear mixed-effects model using decision type, condition, and their interaction to predict the adult participants' subjective attributions, with participant ID included as a random effect. Using the "drop 1" function in R, we found that the interaction terms significantly improved model fit,  $\chi^2(1, n = 100) = 83.85, p < .001$ . We then implemented follow-up linear models to examine the effect of decision type for each condition. As can be seen in Figure 2, for the *baseline* condition, the adult participants rated the anti-autonomy decision  $(M_{Anti} = 2.7, SD_{Anti} = 1.2)$  less positively than the pro-autonomy decision  $(M_{Pro} = 5.7, SD_{Pro} = 0.8), B = -2.96, SE = .09, p < .001$ . Similarly, and to a lesser degree, for the *test* condition, the adult

participants attributed less positivity to the anti-autonomy decision ( $M_{Anti} = 3.6$ ,  $SD_{Anti} = 1.3$ ) than the pro-autonomy decision ( $M_{Pro} = 5.3$ ,  $SD_{Pro} = 1.3$ ), B = -1.66, SE = 0.13, p < .001. These data are graphically represented in Figure 2.

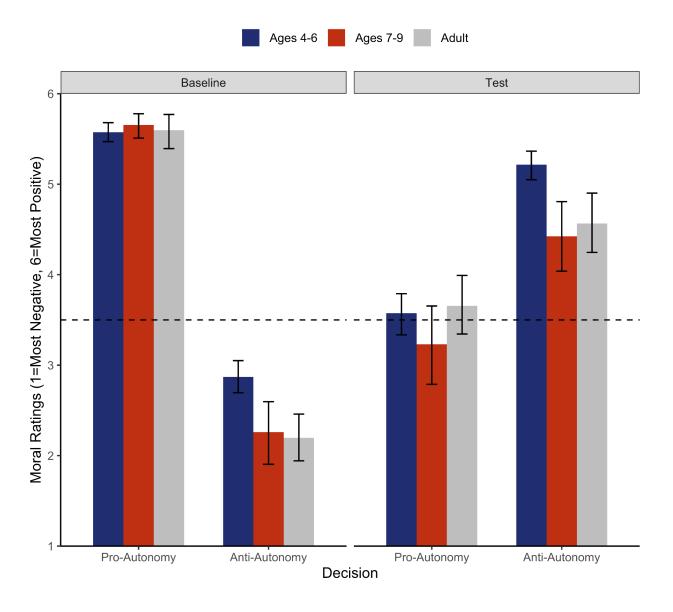
## Forced-Choice Responses

We utilized a generalized linear mixed-effects model using condition to predict the adult participants' forced-choice judgments (anti-autonomy decision = 0, pro-autonomy decision = 1), with participant ID included as a random effect (not preregistered). Looking toward the adults' forced-choice moral responses, we found that participants evaluated the anti-autonomy decisions more positively in the test condition ( $M_{Test} = .23$ ,  $SD_{Test} = .39$ ) than in the baseline condition  $(M_{Base} = .96, SD_{Base} = .21), B = -6.38, SE = 1.00, t(100) = -6.41, p < .001, 95\% CI [-8.33, -4.43].$ We conducted binomial tests comparing each type of decision in each condition to chance level, and we used the Fisher method to combine the p-values of the individual measures within each normative category (i.e., moral, subjective, and 'you'). We found that, in the baseline condition, participants chose the pro-autonomy decisions over the anti-autonomy decisions higher than chance (p < .001), whereas in the test condition, participants chose the anti-autonomy decisions over pro-autonomy decisions higher than chance (p < .001). As for the adults' subjective attributions, they generally evaluated the pro-autonomy decision positively, though they selected the anti-autonomy decision more often in the test condition ( $M_{Test} = .79$ ,  $SD_{Test} = .41$ ) than in the baseline condition ( $M_{Base} = .96$ ,  $SD_{Base} = .21$ ), B = -4.12, SE = .74, t(100) = -5.56, p = <.001, 95% CI [-5.57, -2.66]. We again conducted binomial tests which found that participants chose the pro-autonomy decisions over the anti-autonomy decisions higher than chance in both the baseline condition (p < .001) and test condition (p < .001). Finally, we examined adults' responses to the 'you' question and found that they evaluated the anti-autonomy option more

positively in the *test* condition ( $M_{Test} = .13$ ,  $SD_{Test} = .34$ ) than in the *baseline* condition ( $M_{Base} = .95$ ,  $SD_{Base} = .22$ ), B = -25.82, SE = 4.57, t(100) = -5.65, p = <.001, 95% CI [-34.77, -16.87]. Once more, we conducted binomial tests which found that, in the baseline condition, participants chose the pro-autonomy decisions over the anti-autonomy decisions higher than chance (p < .001), whereas in the test condition, participants chose the anti-autonomy decisions over pro-autonomy decisions higher than chance (p < .001). See Figure 3 for a graphical representation of these results.

## Figure 1

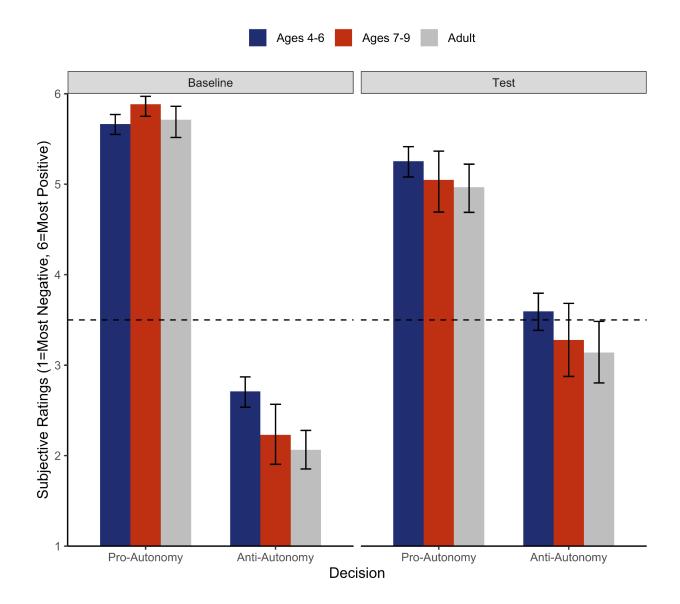
Participants' Moral Evaluations of Pro- and Anti-Autonomy Decisions by Condition and Age Category



*Note*. Error bars are bootstrapped 95% confidence intervals.

Figure 2

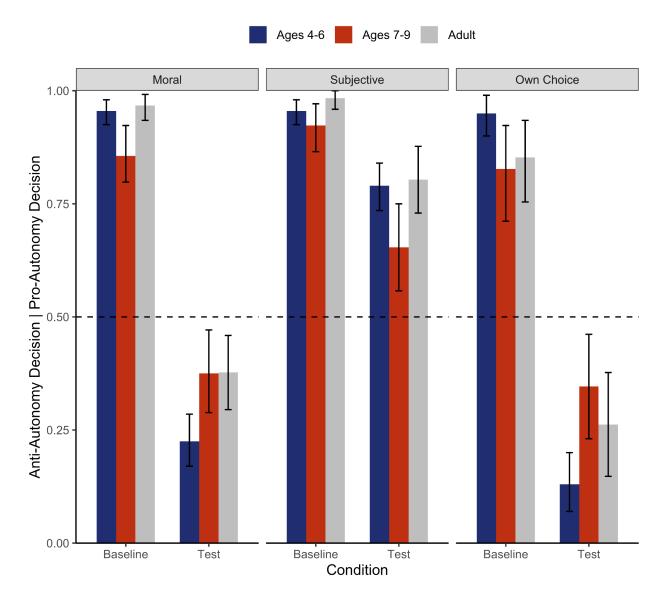
Participants' Subjective Attributions of Pro- and Anti-Autonomy Decisions by Condition and Age Category



*Note.* Error bars are bootstrapped 95% confidence intervals.

Figure 3

Participants' Forced-Choice Ratings of Pro- and Anti-Autonomy Decisions by Condition and Age Category



*Note*. Error bars are bootstrapped 95% confidence intervals.

# Children's Data

## Moral Evaluations

We again conducted a linear mixed-effects model using decision type, condition, and their interaction to predict the child participants' moral evaluations, with participant ID included as a random effect. According to the "drop 1" function in R, we found that the interaction terms significantly improved model fit,  $\chi^2(1, n = 113) = 1112.80, p < .001$ . In the *baseline* condition,

participants evaluated the anti-autonomy decisions ( $M_{Anti} = 2.2$ ,  $SD_{Anti} = 1.6$ ) less positively than the pro-autonomy decision ( $M_{Pro} = 5.6$ ,  $SD_{Pro} = 0.9$ ), B = -3.40, SE = 0.12, p < .001. In contrast, for the *test* condition, the participants evaluated the anti-autonomy decision ( $M_{Anti} = 4.5$ ,  $SD_{Anti} = 1.9$ ) more positively than the pro-autonomy decision ( $M_{Pro} = 3.5$ ,  $SD_{Pro} = 1.9$ ), B = 1.04, SE = 0.18, p < .001. See Figure 1 for the results. To investigate potential age effects, we also added age in years as a moderator to the model, and we found that the interaction terms did not significantly improve model fit,  $\chi^2(1, n = 113) = 0.28$ , p = .75.

#### Subjective Attributions

Once more, we conducted a linear mixed-effects model using decision type, condition, and their interaction to predict the child participants' subjective attributions, with participant ID included as a random effect. Based on the "drop 1" function, we found that the interaction terms significantly improved model fit,  $\chi^2(1, n = 113) = 193.28$ , p < .001. Looking toward the *baseline* condition, participants rated the anti-autonomy decision ( $M_{Anti} = 2.1$ ,  $SD_{Anti} = 1.5$ ) less positively than the pro-autonomy decision ( $M_{Pro} = 5.8$ ,  $SD_{Pro} = .8$ ), B = -3.65, SE = 0.10, p < .001. As for the *test* condition, we found that participants rated the anti-autonomy decision ( $M_{Anti} = 3.20$ ,  $SD_{Anti} = 2.03$ ) less positively than the pro-autonomy decision ( $M_{Pro} = 5.00$ ,  $SD_{Pro} = 1.66$ ), but to a smaller degree than in the *baseline* condition, B = -1.80, SE = .17, p < .001. Figure 2 provides a representation for these results. We also added age in years to the model as a moderator, and we did not find that the interaction term significantly improved model fit,  $\chi^2(1, n = 113) = 0.02$ , p = .93.

#### Forced-Choice Responses

We utilized a generalized linear mixed-effects model using condition to predict the child participants' forced-choice judgments, with participant ID included as a random effect (not

preregistered). In investigating children's forced-choice moral evaluations, we found that they tended to evaluate the anti-autonomy decision more positively in the test condition ( $M_{Test} = .38$ ,  $SD_{Test} = .47$ ) than in the baseline condition ( $M_{Base} = .92$ ,  $SD_{Base} = .28$ ), B = -3.23, SE = 0.35, t(113) = -9.19, p < .001, 95% CI [-3.97, -2.58]. We conducted binomial tests comparing each type of decision in each condition to chance level, and we additionally used the Fisher method to combine the p-values of the individual measures within each normative category (i.e., moral, subjective, and 'you'). In the baseline condition, the child participants chose the pro-autonomy decisions over the anti-autonomy decisions higher than chance (p < .001); however, in the test condition, the participants chose the anti-autonomy decisions over pro-autonomy decisions higher than chance (p < .001). Additionally, in running binomial tests for the individual measures, we found that we could not reject the null hypothesis (i.e., that a measure was chosen at chance) for the measure of 'fair' in the *test* condition (p = .85). Regarding children's subjective attributions, they evaluated the pro-autonomy decision the most positively overall, but they still chose the anti-autonomy decision more in the test condition ( $M_{Test} = .73$ ,  $SD_{Test} = .44$ ) than in the baseline condition  $(M_{Base} = .96, SD_{Base} = .21), B = -3.67, SE = 0.79, t(113) = -4.64, p =$ <.001, 95% CI [-5.22, -2.12]. We again conducted binomial tests and found that the child participants chose the pro-autonomy decisions over the anti-autonomy decisions higher than chance in both the baseline condition (p < .001) and test condition (p < .001). We also examined children's forced-responses for the 'you' question, and we found that the participants tended to evaluate the anti-autonomy decision in the test condition ( $M_{Test} = .30$ ,  $SD_{Test} = .46$ ) more positively than in the baseline condition ( $M_{Base} = .84$ ,  $D_{Base} = 0.37$ ), B = -2.57, SE = 0.45, t(113) =-5.69, p = <.001, 95% CI [-3.65, -1.89]. We conducted binomial tests and found that, in the baseline condition, participants chose the pro-autonomy decisions over the anti-autonomy

decisions higher than chance (p < .001), whereas in the test condition, the child participants chose the anti-autonomy decisions over pro-autonomy decisions higher than chance (p < .001). See figure 3 for a graphical representation of these results.

#### **General Discussion**

Overall, our results highlight that both adults and children tend to comprehend, morally value, and prefer anti-autonomy actions when they involve paternalistic benefits; however, the two age groups overwhelmingly normatively valued and preferred the pro-autonomy actions when there were no paternalistic benefits present. Not only do our results display a broad positivity for paternalistic anti-autonomy actions, but they also show a general subjective devaluation and deprioritization for anti-autonomy actions across the conditions. Remarkably, children and adults also seemed to share exceptionally similar patterns of judgments toward pro-and anti-autonomy decisions across their moral, subjective, and forced-choice judgments.

In situations in which there were no external benefits for going against one's autonomy, adults tended to view the pro-autonomy option as greater in moral and subjective value, and tended to prioritize the pro-autonomy option more, than the anti-autonomy option. This finding readily aligns with the surrounding literature that displays adults' subjective distaste for anti-autonomy actions (Lupoli et al., 2018; Thompson et al., 2022). Similarly, children readily displayed a high normative appreciation and preference for pro-autonomy decisions, over the anti-autonomy decisions, when there were no surrounding paternalistic benefits. Overall, these findings suggest that people, across their development, tend to normatively value and prioritize satisfying others' wishes under situations that contain no external values or benefits.

Through our results, it also seems apparent that adults followed the paternalistic trends that we would expect from the surrounding literature, both in their willingness to perform the

paternalistic decision as well as in rating the anti-autonomy option higher in normative value when it provides benefits to one's health and safety (Ambuehl et al., 2019; Kassirer et al., 2020). Although the surrounding literature may seem mixed on how we tend to truly value and appreciate paternalism, our results suggest that adults tend to morally appreciate paternalistic interventions while still acknowledging that such interventions are subjectively distasteful. Taken altogether, it would seem that adults hold mixed feelings and evaluations toward paternalistic behaviors, though it seems telling that, in the end, they would still choose to enact the paternalistic intervention to benefit others. Similar to the adults, the child participants tended to morally value, but acknowledge a subjective dislike for, paternalistic interventions. Though there seems to be a common, colloquial understanding that children 'just would not understand' the importance of such beneficial and 'objective' decisions, they nonetheless display a tendency to value and prioritize the anti-autonomy option when it provides paternalistic benefits. In line with the surrounding literature - which mostly displays paternalistic tendencies for children (Martin et al., 2016; Martin & Olson, 2013) - our child participants' showed themselves to be rather paternalistic when the situation allowed for it.

As is readily observable across Figures 1-3, it would appear that the children's judgments did not greatly differ from those of their adult counterparts. In fact, our overall sample of participants appear to display the same patterns of judgment regardless of their age category. Focusing on the children's age categories, our results also displayed no significant age effects on children's moral and subjective judgments despite the surrounding literature's findings of a sharp developmental shift, between the ages of 4 and 7, from prioritizing desire-fulfillment to preferring goal-completion and rule-following (Lagattuta, 2005; Lagattuta et al., 2010; Yang & Frye, 2018). Although some studies have found that children's judgments and views align more

closely with adults' as they grow older(Venkatesh & DeJesus, 2022), our results reveal that judgments relating to autonomy and paternalistic interventions may be held somewhat constant over the ages, at least within our American setting (Bao & Lam, 2008; Thompson et al., 2022). Overall, children and adults appear to show no significant differences in their normative judgments and priorities regarding decisions relating to one's autonomy across both of our conditions.

Though it seemed necessary to confine the normative values that we tested, both to make child experimentation efficient and to select the values which children would most readily comprehend, we only used two values each for participants' moral evaluations ('right' and 'fair') and subjective attributions ('like' and 'happy'). Though these values seemed largely comprehensible and accurate for their normative categories, it might still be useful to provide more, or even different, normative values for the participants' judgments. In particular, binomial tests indicated that the particular measure of 'fair' was chosen roughly at chance during the test condition of children's forced-choice response section. This lone instance, when viewed holistically across the other results, does not necessarily display a lack of comprehensibility for the particular measure, but it does indicate that there is potential variation in participants' judgments of these individual normative values. Additionally, our sample may have benefited from increased diversity as both our child and adult samples were predominantly White in terms of race. Furthermore, it would seem that one's culture may importantly impact their subjective viewpoints on paternalism (Bao & Lam, 2008; Kassirer et al., 2020; Thompson et al., 2022), so it might be useful to utilize a broader cultural sample in order to make more widely generalizable conclusions regarding people's tendency to value and enact paternalism.

Future studies may benefit from an increased quantity of normative values along with a greater diversity of participants. Additionally, we have already begun running a follow-up study which investigates participants' normative evaluations of pro- and anti-autonomy decisions in situations in which (1) there are no paternalistic benefits, (2) one caretaker enacts 'soft paternalism' (i.e., paternalism which is provided for an ignorant individual who otherwise shares the same relevant values), and (3) one caretaker enacts 'hard paternalism' (i.e., paternalism which is provided for an knowing individual who intentionally commits to an option which the paternalistic agent perceives as not being in their best interest; Dworkin, 2020). Future studies might also benefit from investigating judgments toward paternalism with variations in (1) caretakers' intentions, (2) the paternalistic context and its severity, and (3) scope of the paternalistic intervention (i.e., whether the intervention affects an individual or group).

Our findings not only help to illuminate the patterns and nuances of children and adults' judgments toward decisions regarding autonomy, but they also have implications toward how people can act against others' wishes in a morally justified way. Our results suggest that people of all ages find anti-autonomy actions to be morally justified, even though they are subjectively unlikable, when they are done for the benefit of others. Furthermore, when asked what type of decision they themselves would choose, people of all ages tended to pick the decision that went against another's wishes when it was for their best benefit. Such findings have important implications for those who manage others across the professional sphere, who try to help patients within the medical field, who try to promote others' safety and wellbeing via a role in public or private security, and beyond. Beyond professional roles, these findings also have strong implications for parents and families, as it seems that children and adults' judgments and tendencies for decisions surrounding autonomy are largely in alignment. As such, children might

understand and appreciate their parents' anti-autonomy decisions more if they had greater awareness of the benefits, and they would likely commit similar anti-autonomy decisions if placed in an applicable role. Though it may sometimes feel difficult to go against someone's wishes for their own good, as we tend to appreciate the inherent value of autonomy, these findings suggest that we are certainly not alone in valuing and prioritizing the helping of others even when it seems subjectively distasteful.

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