Article

Just Chill! An Experimental Approach to Stereotypical Attributions Regarding Young Activists

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Abstract: Climate change is a crucial issue, which is mobilized by activists. However, activists are targeted with negative stereotypes, hindering their influence. Young activists are environmentally conscious, but the stereotypical attributions assigned to them are unknown, with competing predictions in the literature (for being activist vs being young). In two studies, we aimed at experimentally examining the stereotypical dimensions that are ascribed to activists (youth vs adult) based on the Stereotype Content Model (SCM), as well as a morality/trustworthiness dimension. Considering that activists are generally considered as high-competent, but low-warm, while youth are considered the opposite (low-competence and high-warmth), we hypothesized the impacts on morality/trustworthiness. Greta Thunberg and Jane Fonda were the personalities used in Study 1 (N = 276), randomly assigned to participants while keeping the same discourse excerpt. Thunberg was penalized in all stereotypical dimensions. In Study 2 (N = 228), fictional characters (teenager or adult) were used instead. As hypothesized, no differences were found in the warmth or competence dimensions, only in the morality/trustworthiness dimension, penalizing the young activist. These results highlight the importance of studying environmental activists considering different social categories in stereotypical appraisals. They also contribute to a better understanding of general resistance towards activists, as well as the factors that are detrimental to their social influence.

Keywords: environmental activism; stereotypical attributions; stereotype content model; youth; pro-environmental behavior

1. Introduction

Climate change is an emerging and increasingly mobilizing issue (Murray 2020). In fact, human activity has impacted the planet, with repercussions for the environment and humanity as a whole (Torgerson 1995). To mitigate this impact, collective adherence to sustainable behaviors is necessary (Stenhouse and Heinrich 2019). Environmentalists emerge as key promoters of these sustainable lifestyles and behaviors, therefore, they are capable of generating a greater awareness of environmental issues (Bashir 2010). Indeed, pro-environmental movements and their actions have gradually become familiar aspects in the public domain, partially due to environmental activists' efforts (Carter 2001). Additionally, due to the efforts of several young activists such as Greta Thunberg, the awareness and mobilization towards climate change has been increasingly noticeable (Murray 2020). The definition of activism embodies a set of practices that promote social, political, and economic change, aiming to disrupt the *status quo* (Jordan 2004). Since activism is fundamental for this purpose, support towards activists—the ones who promote this change—would be expected. However, some resistance to environmental activists is noticeable, with multiple sources. First, there is the ambivalence of opinions among the general public regarding the realness of human responsibility for climate change (Swim and Geiger 2018). Second, negative reactions to social innovators such as environmental activists are to be expected from

those who wish to maintain and preserve the status quo. Third, activists often use radical means to attract attention from the media, but it can backfire: the portrait of extreme forms of activism enforces the media representation that all activists are extremist (Maxwell and Miller 2015; Stenhouse and Heinrich 2019). All these factors inform and reinforce negative stereotypes about activists (Bashir et al. 2013). Indeed, activism is equated with negative characteristics, such as aggressiveness, hostility, and militancy (Amira 2019; Stenhouse and Heinrich 2019). Environmentalists, in particular, may also be perceived as eccentric, hippies, and tree huggers, among other stereotypes (Bashir et al. 2013).

However, little is known regarding young environmental activists, who combine different (and sometimes antagonistic) stereotypical attributions for being both young and activists. Due to the greater awareness of climate change by young activists, the study of stereotypes towards environmental activists becomes fundamental to elucidate the low adherence to activists' ideals, as well as the apathy towards sustainable behaviors (Klas et al. 2019). This study aims to examine the stereotypes towards young environmental activists using the Stereotype Content Model (SCM) as a framework (Fiske et al. 1999), including the dimension of morality/trustworthiness (Leach et al. 2007). It takes an experimental approach, by manipulating the age of environmental activists, in two experimental conditions.

1.1. Environmental Concern

The first decades of the 21st century highlighted awareness towards climate change problems, essentially through the presence of mediatic activists, such as Greta Thunberg. The Swedish teenager managed to organize one of the biggest pro-environment movements in 2018 through a school strike, contributing to numerous protests globally (Murray 2020). Several public figures and celebrities reacted to these protests, including the former US President, Donald Trump (Murphy 2021). He requested Greta to "Just Chill!", in a tweet that became viral on social networks, showing the former president's disapproval of TIME magazine's announcement of Greta as 'Person of the Year 2019'. This event led to the even bigger exposure of the young activist.

Indeed, there is scientific consensus that human activity has led to several negative repercussions on the planet, therefore compromising the environment, humanity, and its future (see Bertoldo et al. 2019 for an overview and how this might not be so consensual among the general public as it is among scientists). Humankind is witnessing an Anthropocene, that is, an era in which the impact of human beings on ecosystems has been revealed with greater notoriety (Mauser 2006). Thus, the collective adherence to sustainable perspectives and behaviors becomes crucial to mitigate the consequences of human impact (Stenhouse and Heinrich 2019).

As societal consensus over human responsibility for climate change is not complete, neither is consensus regarding its mitigation strategies (Bertoldo et al. 2019; Hornsey and Fielding 2020). Thus, environmental activists have an important role. They transform how we interact with nature through different actions involving society (Mauch et al. 2006), highlighting the promotion of sustainable lifestyles and behaviors (Bashir 2010). Environmentalists thus represent the roles, values, and behaviors that must be acquired to reduce the impact of human beings on the planet (Bashir 2010). Additionally, they allow mediation between institutions and laws, and the rest of society (Castro et al. 2017; Fonseca and Castro 2022). These can range from simpler and individual actions to challenging and radical discourses and actions aimed at modifying the structure of society (Macintyre and Chaves 2017; Uzelgun et al. 2015).

1.2. Environmental Behaviors and Discourses

Regarding environmental behaviors, Stern (2000) proposes that these may differ according to radicalism, as well as public visibility. The same author proposes a classification into (a) activist behaviors; (b) moderate activist behavior in the public sphere; (c) behavior in the private sphere. Activist behavior is associated to actions that evoke active resistance,

such as direct actions in organizations and public demonstrations (Castro et al. 2017; Stern 2000), with the purpose of attracting people to adopt their ideals. Moderate activist behaviors in the public sphere represent behaviors that indirectly affect public policies, for example, through petitions or even through sharing information on social networks (Stern 2000). As these behaviors may also include public demonstrations, they can be considered as a form of moderate activism (Castro et al. 2017). Finally, private behaviors represent pro-environmental actions in the domestic domain, being involved in the purchase, use and disposal of products, along with the comprehensive understanding of the environmental impact of each of these behaviors (Stern 2000). They are also considered as a weaker form of environmentalism (Castro et al. 2017).

There are similar differences regarding activists' discourse. They can take a more radical, strong, uncompromising discourse pushing for structural and immediate action. Conversely, they can take a more moderate/weak, discourse, making compromises and pushing for individual, lifestyle actions, or for the use of current technological tools (Castro et al. 2017; Dryzek 2013; Uzzell and Räthzel 2009; Uzelgun et al. 2015). Castro et al. (2017) characterized the pro-environmental discourses in two formats. In a "yes-but" discourse, activists consider climate change to be an urgent problem, but concede that there is an effort on the part of society to adopt behaviors aimed at reducing environmental problems. On the other hand, in a "no-no" discourse, activists consider a more radical approach, proclaiming that climate change is urgent, and structural changes are necessary.

The different types of environmental behaviors and discourses constantly challenge the status quo, instigating social change. Non-traditional actions and behaviors help the activist to distinguish themselves from the rest of society in order to attract public attention. One would assume that environmental concern is relevant and socially desirable and, consequently, there should be a positive response to the activists' efforts and principles (Bashir et al. 2013), but this is not always the case. There is some recognition of the ideals as well as activists' pro-environmental private lifestyles in a positive way (Bashir 2010; Klas et al. 2019), but more radical behaviors and/or discourses are often rejected. An "activist dilemma" has even been described in the literature: by being involved in extremist actions to obtain visibility to their cause, activists end up reinforcing an association between activism and extremism (Stenhouse and Heinrich 2019). As a result of this negative connotation, there is a renunciation of some activist behaviors, as well as a desire to dissociate from the label of activist, even by those with ecological beliefs and practices (Cherry 2019). Thus, the lack of participation or inertia towards activist ideals by members of society could be due to not wishing to be stigmatized or receive a social sanction, or even to possess a less positive self-concept (Stuart et al. 2018). Indeed, activists can be seen as obligating others to follow their path, which can be perceived by the average citizens as a moral reproach, threatening their self-image (Judge and Wilson 2019; Swim and Geiger 2018; Uren et al. 2019; Valor et al. 2018).

The stereotypes associated with activists may, thus, be one of the aspects responsible for the population's avoidance and inertia towards ideals and pro-environmental behaviors (Bashir et al. 2013; Bertolo 2014), which deserves further analysis.

1.3. Stereotypes towards Environmental Activists

Stereotypes are mental images arising from survival responses common to human beings. They facilitate the identification of intentions in individuals or groups, as well as the capacities that individuals or groups have to act upon them (Fiske et al. 2007).

When it comes to the activist label, there might be a mental image of a group of people actively participating in protests and demonstrations, searching for a solution through unconventional methods (Pettinicchio 2012). Despite the positive aspects that these groups may evoke (namely, in the case of environmental activists, positive characteristics and traits related to the care and concern for planet Earth (Klas et al. 2019)), they may at the same time evoke negative characteristics due to the radical transformations in the current systems that they are responsible for promoting (Diekman and Goodfriend 2007). When endorsing

change through non-traditional methods, activists may be interpreted as hostile, militant, eccentric, hippies, "tree huggers", among other stereotypes, which in turn, remove the likelihood of affiliation with these groups by society (Bashir et al. 2013; Maxwell and Miller 2015). Additionally, the way that activists are portrayed in the media and popular culture reinforces the various opinions towards them as eccentric (Bashir 2010). Recently, some authors have addressed this issue by fine-tuning the different stereotypical dimensions in which activists can be penalized (Bertolo 2014; Castro et al. 2017; Castro and Rosa 2022; Rosa and Farinha 2022).

Cuddy et al. (2009) proposed through the Stereotype Content Model (SCM) that the manifestation of stereotypes is not unidimensional. Instead, group stereotypes and impressions are formed based on two fundamental dimensions: warmth and competence. We must first determine the person's intentions, followed by their ability to act on them (Fiske et al. 2007).

Warmth is the social perception related to the thought of a person or group as friendly, kind, tolerant, or sociable. Meanwhile, competence is related to traits such as capable, efficient, intelligent, or competent. These dimensions are associated with two variables that are present in intergroup relationships: status and competition (Fiske et al. 2002; Cuddy et al. 2009). Competence is related to status, where the more competent the person or group, the higher their status, which is measured through prestige and economic success (Fiske 2012). A person or group perceived as most competitive is, consequently, distinguished as the coldest or indifferent, while a preference for cooperation between people eventually leads to a similar sharing of values and ideals, being perceived as more sociable (Russell and Fiske 2008).

The combination between levels of these two dimensions (warmth and competence) results in a diversity of reactions: admiration, contempt, pity/paternalism, or even envy (Fiske et al. 2007). For instance, individuals or groups who score high on both warmth and competence elicit positive perceptions (admiration), while a lower score in both dimensions is associated with negative perceptions (contempt). In turn, a low score in one dimension and a relatively high score in the other dimension can also elicit different responses. For example, Northern Europeans are perceived as high in competence but low in warmth, which is associated with envy as a response. On the other hand, young people and adolescents are perceived as high in warmth but low in competence, eliciting paternalistic reactions (Fiske et al. 2007). It is thus a comprehensive approach to different responses towards individuals and groups, while at the same time being quite straightforward to measure.

Despite the emphasis of competence and warmth in the literature, some authors have defended that warmth has traditionally included two separate constructs: friendliness, (already mentioned) and morality/trustworthiness (Ellemers et al. 2013; Landy et al. 2016). Thus, the SCM has so far failed to disentangle these constructs. Morality can be defined by what is believed to be wrong or right. This aspect assumes an important role in identity formation, both at the individual and group level, thus, serving as a guide for behaviors perceived by the group as morally correct and valid (Ellemers et al. 2013). Morality seems to be a central dimension in the attribution of positive characteristics to a certain group: there is a preference for belonging to a moral group, when compared to a competent or sociable one. Additionally, trustworthiness is expressed as the formation of moral or immoral judgments (Leach et al. 2007). Through trustworthiness, traits are considered as fair or cooperative. In addition, the formation of stereotypical traits associated with trustworthiness takes place quite immediately, being one of the most important aspects in the formation of evaluative impressions towards others (Leach et al. 2014).

This stereotype content framework has been applied to many different groups, being considered a fairly important tool in social perception. However, knowledge regarding stereotypical attributions towards environmental activists is still needed. Castro et al. (2017) found that activists are considered competent, regardless of the type of discourse they employ (radical or moderate). The agency ascribed to being an activist permeates both

discursive types. However, activists using a more radical discourse are penalized in terms of warmth, compared to environmentalists who engage in moderate discourse (see also Bertolo 2014). In the quest to better understand reactions to environmental activists, the SCM provides a particularly insightful framework, allowing the positioning of general perceptions about activists along these quadrants of warmth and competence. However, when considering the evidence regarding both activists and youth together, the SCM seems to offer two competing avenues for young activists: as youth, they are seen as warm but incompetent (and they are paternalized), whereas as activists, they are seen as competent but not warm (and they are envied but without the desire to affiliate with them).

Recently, Rosa and colleagues (Castro and Rosa 2022; Rosa and Farinha 2022) introduced for the first time morality/trustworthiness in stereotypical attributions towards environmental activists, finding that an activist showing a radical discourse, compared with an activist showing a moderate discourse, was perceived as significantly more trustworthy. The activist was also perceived as equally competent, regardless of the type of discourse (corroborating the agency ascribed to being an activist/environmentalist).

With the rise of young activists, the stereotypical attributions assigned to them are unknown and puzzling: according to the SCM, youth are seen as low in competence but high in warmth (paternalistic appraisals), but activists are seen as high in competence and low in warmth (envious appraisals). Thus, more research is needed to understand the stereotypes regarding young activists.

1.4. Stereotypical Dimensions in Youth Activism

Youth are particularly interested in environmental issues to which they feel they can contribute (Arnold et al. 2009). Currently, young people are partially responsible for social movements related to climate change (Murray 2020). Of these, Greta Thunberg emerged as a mediatic figure, attracting attention with aggressive demands on governments and international leaders, warning of the urgency to implement solutions to climate change. This sense of urgency is also seen in other young people who have emerged as agents of change, exposing the failure of the current system (Han and Ahn 2020) and demanding profound transformations in various dimensions (Chazan and Baldwin 2019). In the framework of activists' discourse, they can be perceived as radical (Castro et al. 2017).

Nonetheless, young activists face great challenges, mainly because they feel seriously disregarded by formal environmental movements (Earl et al. 2017), as well as unrepresented (Harris et al. 2010). In addition, they perceive themselves to be represented derogatorily in the media, with young people responsible for environmental movements being portrayed as pupils, implying that they do not have enough experience to support their claims or actions, and the authenticity of the facts and information they proclaim is questioned (Bergmann 2019).

1.5. The Present Research

Considering the literature, radical activists suffer a sanction in the warmth dimension, but they are considered competent (Castro et al. 2017) and trustworthy (Rosa and Farinha 2022). Conversely, young people are penalized in competence but perceived as warm (Fiske and Dupree 2014). Given the importance that young people have in the current environmental movements, the study of stereotypes towards young activists becomes fundamental in order to understand the general population's stereotypical attributions towards this group.

Therefore, this study intends to examine the role of the activist age in stereotypical dimensions—in particular, to identify the dimension(s) in which young environmental activists might be prominently penalized when they adopt a radical discourse. Additionally, since morality/trustworthiness is an important aspect in the formation of judgments and characteristics (Leach et al. 2007), it can be useful to include, not only as a separate dimension, but one that can be helpful to better understand young activists' stereotypes. For this purpose, an experimental study was carried out, intending the manipulation of

age on environmental activists constantly assuming a radical "no-no" discourse through two levels: (1) young activist and (2) adult activist.

Restricting it to a radical young activist, by being an activist, they cannot be penalized in competence; however, for being a young person, they cannot be penalized on warmth. In this sense, based on previous research, this ambiguity leads us to anticipate that there may be no differences between the young and adult activists, both in the dimension of competence (hypothesis 1) and in the dimension of warmth (hypothesis 2). Regarding the stereotypical attributes of morality/trustworthiness, we expect that there will be differences according to the age of the activist: the young activist will be seen as less moral/trustworthy than the adult activist (hypothesis 3) due to a relocation of the stereotypes in this dimension.

2. Study 1 Materials and Methods

The age of activists was manipulated through two levels: young activist and adult activist, where in both conditions they assume a radical "no-no" format discourse. Regarding the activists, Greta Thunberg was used as a personality for the young activist condition, since she is seen as an anchor of contemporary environmental activism, and she was so mediatic that participants could have associated a young activist to her anyway. For the adult condition, there was a concern in finding an adult activist with similar values, discourse, and gender, as the purpose was to maintain the maximum of characteristics as constant as possible for both conditions, except for age. In this sense, Jane Fonda, an active figure in activism, was chosen for this first study. She performed "Fire Drill Fridays", radical protests every Friday to create awareness about the climate crisis. She became quite popular, being named together with Greta Thunberg.

2.1. Participants

The sample consisted of 276 participants. The sample was obtained through convenience and snowball sampling, using social networks. Most were females (n = 216) (about 78.3% of the total sample). The participants' ages ranged between 18 and 82 years old (M = 29.09; SD = 10.11). Most of the sample was Portuguese (97.5%), and half of the sample (50.4%) were university graduates.

2.2. Procedure

An online questionnaire was developed in the platform Qualtrics (Provo, UT). A between-subjects design was chosen, contemplating the manipulation of the activist's age at two levels, namely, young versus adult activist, through the real personalities, Greta Thunberg and Jane Fonda. Data were analyzed using the software SPSS, version 27.

Upon assessing the link of the study, participants read the informed consent information. Those who agreed to participate proceeded to the study. The participants were then requested to read a brief description of a renowned activist, accompanied by a photograph of the respective activist. Only one of the two activists appeared to the participant: (1) Greta Thunberg or (2) Jane Fonda, and the distribution of these experimental conditions by the participants was conducted randomly through Qualtrics. This was followed by a paragraph that participants were asked to read, containing an excerpt of a speech supposedly given by the activist. In both conditions, the speech presented was identical, based on a compilation of some excerpts taken from the book "No one is too small to make a difference" by Greta Thunberg (Thunberg 2019). The photos chosen tried to display both Greta and Jane in similar situations and in a similar emotional state, during a speech. The intention, as mentioned, was to manipulate only the age of the activists, maintaining as a constant in both conditions as many things as possible, namely the same (radical) discourse.

After the manipulation being conducted, the participants were asked several questions related to the SCM, followed by a manipulation check question. Finally, they were presented some debriefing text, informing about the manipulations, and providing more general information.

2.3. Measures

To measure stereotypical dimensions, items based on the SCM of Cuddy et al. (2009) and the extension of Leach et al. (2007) was used, namely in the dimensions of competence, warmth, and morality/trustworthiness. The participants were asked "How would you consider the impression you had of the activist? Please indicate the extent to which the following adjectives characterize it.", using a Likert scale ranging from 1 to 7 (1—Nothing characteristic to 7—Very characteristic). This scale had eleven items: three items of traits/adjectives related to competence ($\alpha = 0.87$): competent, intelligent, efficient; three items related to warmth ($\alpha = 0.91$): kind, friendly, and warm; and finally, three items related to the dimension of trustworthiness ($\alpha = 0.90$): honest, trustworthy, sincere. Two more stereotypes were added to better understand the participants' appraisals about the activist presented. More specifically, the participants were asked to rate each personality as "environmentalist" and "radical", along with the other stereotypical attributes. The order of these items was placed randomly.

The question "Do you remember the activist you read about earlier? Who was?" was used as a manipulation check. Additionally, using a 7-point Likert scale, the activist's perception of age was also questioned: "In relation to age, you consider the activist:" (1—Too young to 7—Too old). Other, ad-hoc, questions were asked as single items, such as agreement with the discourse, own environmental behavior, or perceptions of the discourse as radical, but they were not used in the analyses.

3. Study 1 Results

Regarding the manipulation check of age, the young activist was considered as younger (M = 2.60; SD = 1.24) when compared to the adult (M = 4.47; SD = 0.66), ($F_{(1, 274)}$ = 243.67, $p < 0.001$, $\eta_p^2 = 0.47$) (Figure 1). Additionally, a chi-square test was used to check whether the participants remembered the activist. The results indicated that the participants were able to correctly identify the activist they saw as Jane Fonda or Greta Thunberg, χ^2 (1, N = 280) = 264.22, $p < 0.001$.
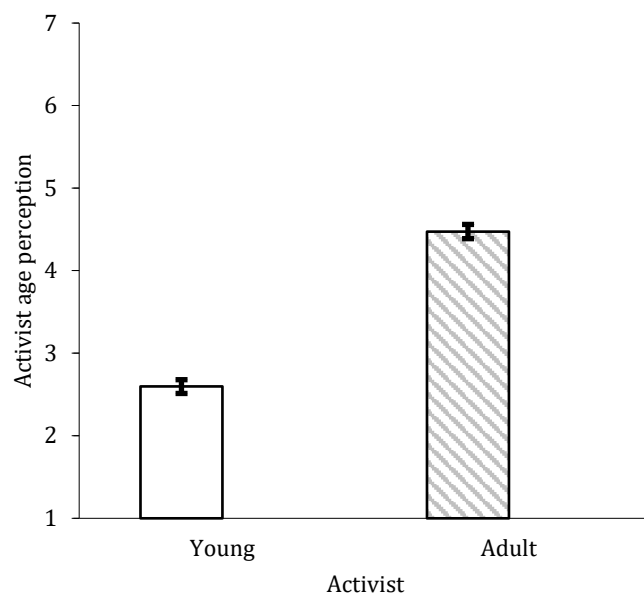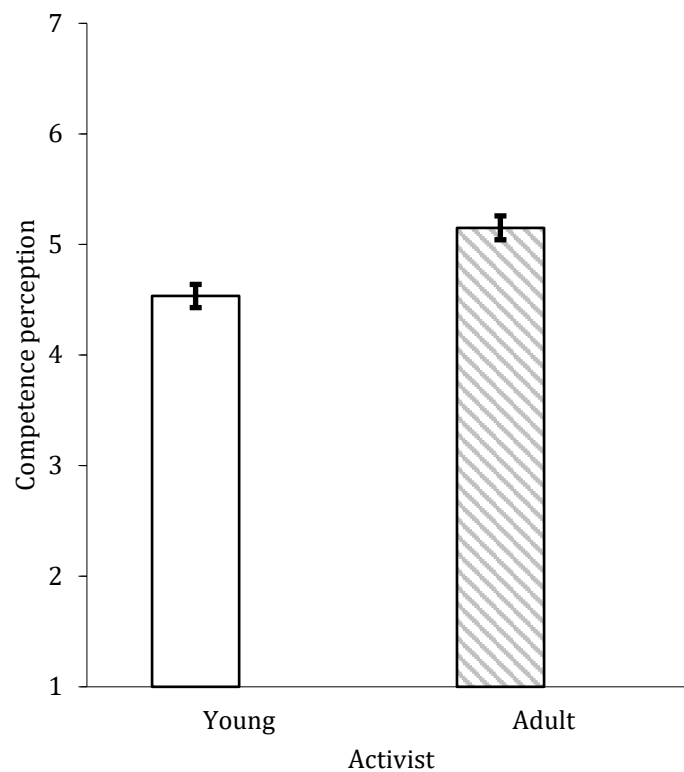

Figure 1. Means and standard errors regarding the activists' perceived age by experimental conditions.

Table 1 shows the descriptive statistics by experimental condition.

Table 1. Descriptive statistics by experimental condition (means, standard deviations).

	Activist Condition					
	Young			**Adult**		
	M	**SD**	**N**	**M**	**SD**	**N**
1. Stereotypic dimensions:						
1.1. Competence	4.53	1.42		5.15	1.05	
1.2. Trustworthiness	4.62	1.56	141	5.36	1.10	135
1.3. Warmth	3.36	1.35		4.63	1.23	
2. Manipulation check: activist's age	2.60	1.24		4.47	0.66	

Regarding the stereotypical dimensions, starting with the competence dimension, there was a significant effect of age in this dimension ($F_{(1, 274)} = 16.72$, $p < 0.001$, $\eta_p^2 = 0.06$). The adult activist was perceived as more competent (M = 5.15; SD = 1.05) when compared to the young activist (M = 4.53; SD = 1.42) (Figure 2). Therefore, hypothesis 1 was not supported.

Figure 2. Means and standard errors regarding competence by experimental conditions.

Regarding the dimension of warmth, there was also a significant effect ($F_{(1, 274)} = 67.36$, $p < 0.001$, $\eta_p^2 = 0.20$), where it appears that the adult activist was also perceived as more sociable (M = 4.63; SD = 1.23) when compared to the young activist (M = 3.36; SD = 1.35) (Figure 3). Hypothesis 2 was also not supported.
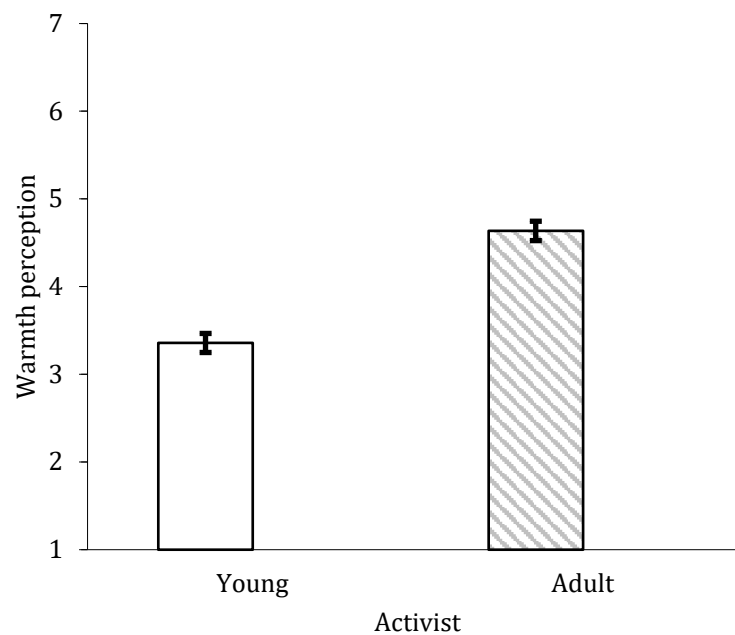
Figure 3. Means and standard errors regarding warmth by experimental conditions.

Finally, regarding trustworthiness, there was a significant effect (F (1, 274) = 20.20, $p < 0.001$, $\eta_p^2 = 0.07$), where it appears that the condition of adult activist was perceived as more moral/trustworthy (M = 5.36; SD = 1.10) when compared to the young activist condition (M = 4.62; SD = 1.56) (Figure 4). Thus, hypothesis 3 was corroborated.
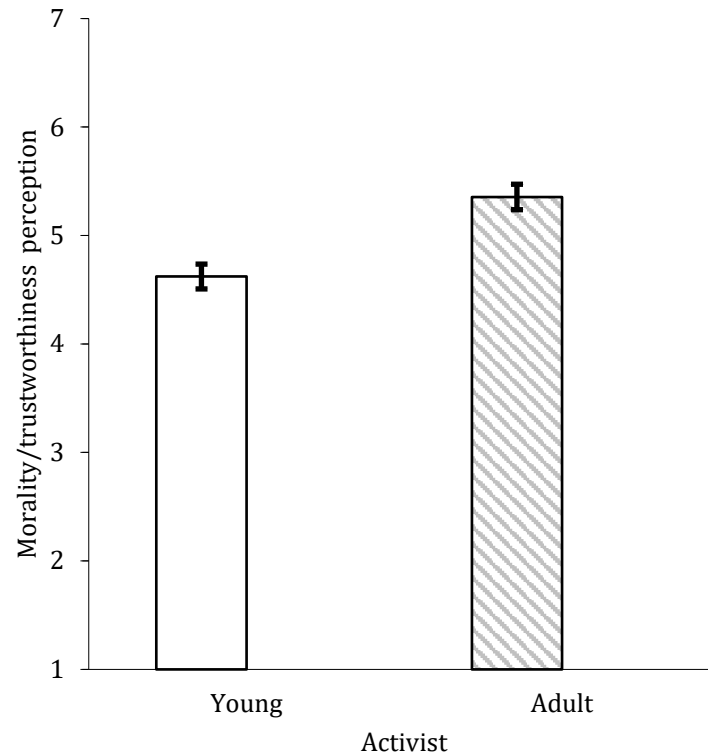

Figure 4. Means and standard errors regarding morality/trustworthiness by experimental conditions.

Regarding the two additional traits, the young activist was perceived as more radical (F (1, 274) = 14.06, $p < 0.001$, $\eta_p^2 = 0.05$), (M = 5.35; SD = 1.57) when compared to the adult activist (M = 4.67; SD = 1.47) (Figure 5). The attribution of environmentalist, however, was found to be slightly more characteristic for the adult activist (M = 6.19; SD = 1.10) when

compared to the young activist (M = 5.85, SD = 1.55), (F (1, 274) = 4.22, $p < 0.04$, $\eta_p^2 = 0.02$) (Figure 6).
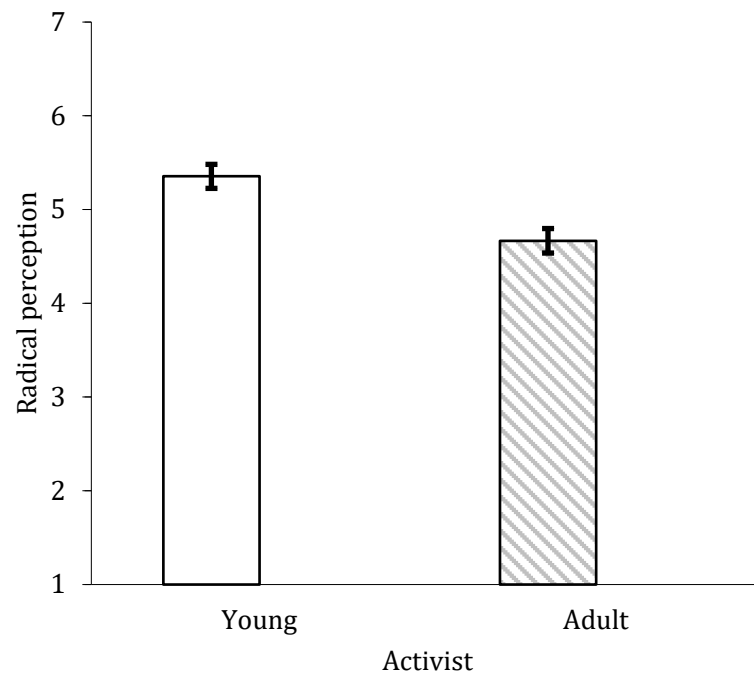

Figure 5. Means and standard errors regarding perceptions of the personalities as radical by experimental conditions.
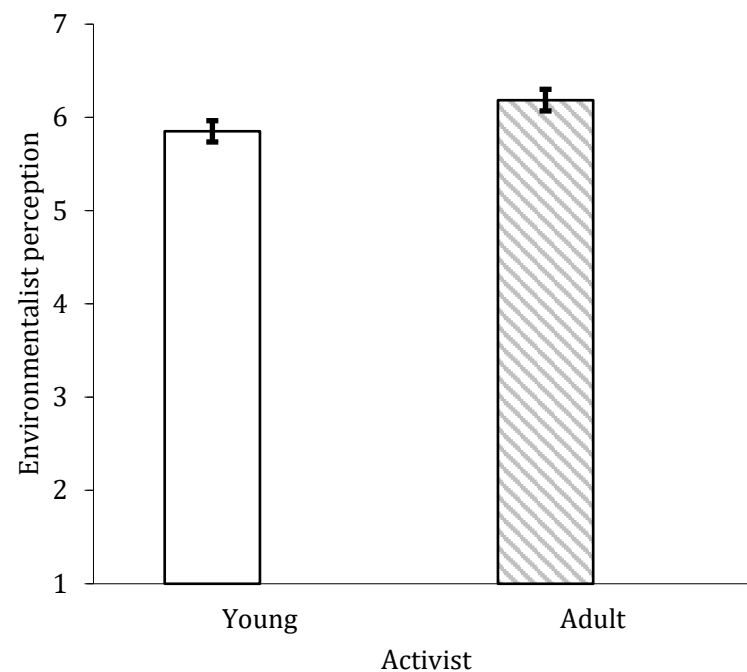

Figure 6. Means and standard errors regarding perceptions of the personalities as environmentalist by experimental conditions.

Study 1 Discussion

The results show a penalization in all stereotypical dimensions for the young activist compared to the older one, namely in competence, warmth, and trustworthiness towards the young activist. Regarding morality, specifically the young activist, the results also show that it was considered less moral/trustworthy than the adult activist, supporting

hypothesis 3. However, no differences were hypothesized in competence or warmth and, thus, hypotheses 1 and 2 were not supported.

Although the same discourse was used in both conditions, the young activist was seen as more radical. It is not clear from this study whether the perception towards the young activist is due to the personality associated with the real person used for this condition instead of just age. A recent study by Fonseca and Castro (2022) analyzing Greta Thunberg discourses showed that her discourses provided an innovative outlook of the general public (and especially the young) as competent agents of change (in contrast with leaders), which is at odds with how she and her movement are negatively and paternalistically depicted in the media, which, ultimately, contributes to how she is perceived (Bergmann and Ossewaarde 2020).

To test our hypotheses away from specific mediatic figures, a second study was carried out, again using a young and adult activist, but both fictitious.

4. Study 2 Materials and Methods

The present study used fictional characters instead of real figures in environmental activism, keeping the female gender in both conditions for better comparability with the results obtained in the first study. Additionally, instead of using the mention of "activist" throughout the questionnaire, it was replaced with the term "environmentalist". This terminology aimed to allow the participants to not instantly associate the fictional figure present in the young condition with Greta Thunberg necessarily.

4.1. Participants

The sample consisted of 228 participants. Most (75%) were female (n = 171), with ages between 18 and 64 years (M = 28.73; SD = 8.36). Most of the sample was Portuguese (99.1%) and highly educated (43% holding a graduate degree and 45.6% holding a master's degree).

4.2. Procedure

A similar questionnaire was produced with the Qualtrics platform (Provo, UT), using similar strategies for participant recruitment. Additionally, it was considered crucial that the participants in this study had not participated in the previous one, and a question was added regarding this aspect. The data were analyzed using SPSS version 27.

After agreeing to participate, a brief textual description of an environmentalist was presented to the participant—to which one of the following two environmentalists could randomly appear: (1) Carolina or (2) Amélia—followed by a paragraph containing a written excerpt of a speech given by the respective activist. The name Carolina was chosen for the young environmentalist, while the name Amélia was considered for the adult environmentalist, as it is a more traditional name. Additionally, a pre-test was carried out to verify the adequacy of the mentioned names as typical for a young or an old person, respectively.

The discourse presented was the same as the one used in the previous study, which was kept constantly radical in both conditions. Only a few cues were provided that helped readers to understand that it was a young environmentalist or an adult environmentalist, and no associated photo was added to this brief presentation, unlike the first study. The description also provided elements positioning the character as an activist, in spite of the broader label of environmentalist. More precisely, the fictional character was introduced in this way:

> *"[Carolina/Amélia] is a [teenager/lady] who, from a very young age, has shown a great interest in nature and its protection. In this sense, [Carolina/Amélia] is involved in several volunteer activities, in which stands out for example, the collection of polluting waste on the beaches, as well as actions of protest and demonstrations against climate change. In her neighborhood, she is known by all the residents, since she promotes recycling and water saving. She even recently petitioned several administrators in her*

neighborhood to put up solar panels. For her, climate change is a complex issue that requires everyone's mobilization and cooperation."

4.3. Measures

The measures used were identical, as in the first study, with similar reliability for the competence (α = 0.87), warmth (α = 0.84), and morality/trustworthiness (α = 0.88) dimensions.

5. Study 2 Results

Table 2 provides descriptive statistics by experimental condition.

Table 2. Descriptive statistics by experimental condition.

	Activist Condition					
	Young			**Adult**		
	M	**SD**	**N**	**M**	**SD**	**N**
1. Stereotypic dimensions:						
1.1. Competence	5.03	1.12		5.09	1.07	
1.2. Trustworthiness	5.09	1.21	113	5.40	1.06	115
1.3. Warmth	4.33	1.21		4.35	1.20	
2. Manipulation check: activist's age	3.31	0.90		3.59	0.87	

Regarding the manipulation check, the young activist was considered younger (M = 3.31; SD = 0.90) when compared to the adult (M = 3.59; SD = 0.87), ($F_{(1, 226)}$ = 5.80, p = 0.02, η_p^2 = 0.03) (Figure 7).
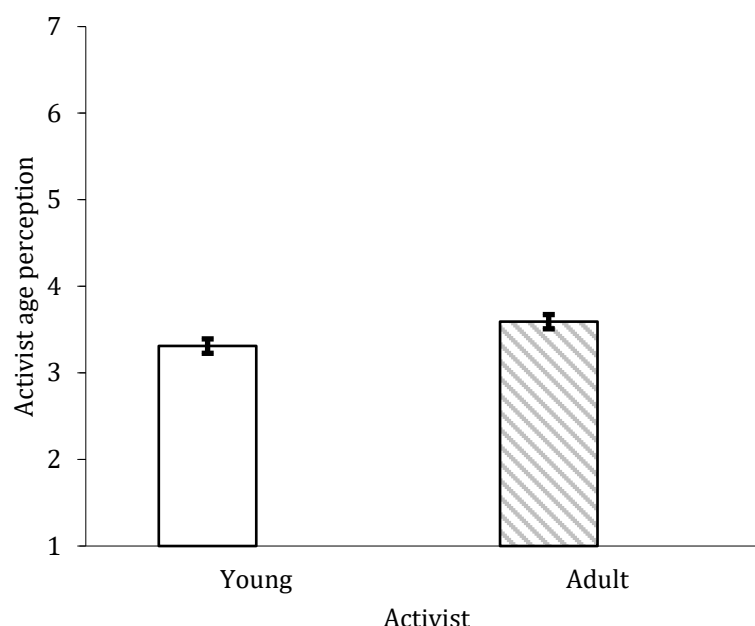

Figure 7. Means and standard errors regarding the perceived activists age by experimental conditions.

Regarding competence, as well as the dimension of warmth, there were no significant differences between the conditions: the young and adult activist were seen as equally competent ($F_{(1, 226)}$ = 0.17, p = 0.68, η_p^2 = 0.001) and equally warm ($F_{(1, 226)}$ = 0.03, p = 0.87, η_p^2 = 0.00). Hypotheses 1 and 2 were, thus, supported.

A significant effect of age was found regarding the stereotypical dimension of morality/trustworthiness ($F_{(1, 226)}$ = 4.19, p = 0.042, η_p^2 = 0.02), where the adult activist was

seen as more moral/trustworthy (M = 5.40; SD = 1.06) when compared to the young activist (M = 5.09; SD = 1.21) (Figure 8). Hypothesis 3 was also supported.
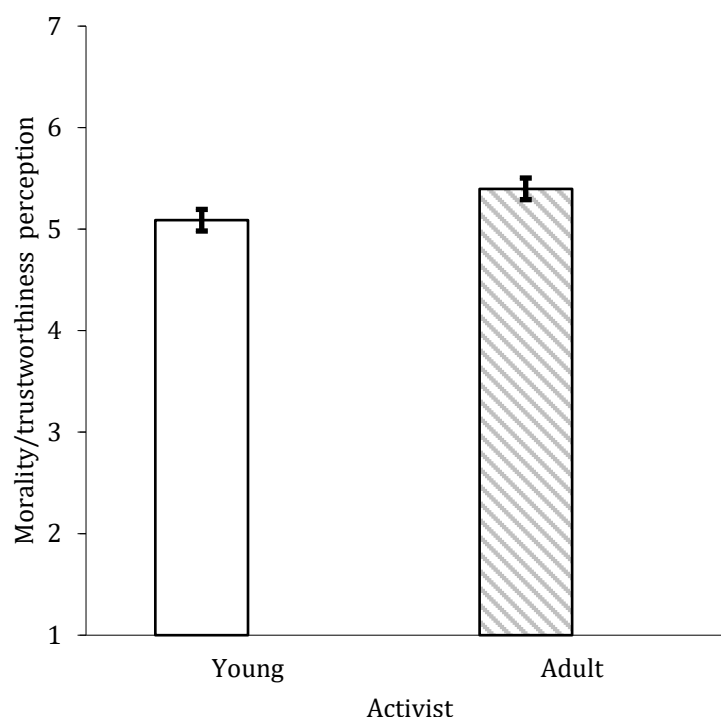

Figure 8. Means and standard errors regarding morality/trustworthiness by experimental conditions.

6. General Discussion

The results from the first study suggest a notable disadvantage towards the young activist (Greta Thunberg, in this case) in all stereotypical dimensions when compared to the adult activist, Jane Fonda. Thus, even though both conditions depicted a radical discourse, the young activist was perceived as less warm, less competent, as well as less moral/trustworthy. This may result from the way Greta Thunberg has been negatively labeled in the media (Bergmann and Ossewaarde 2020; Fonseca and Castro 2022). Specifically, and corroborating the results obtained, Greta was portrayed in the media as inexperienced and unable to defend her interests, with media also portraying the idea that young activists are still children and, thus, do not have enough knowledge or "know how".

Complementarily, the adult activist seemed to be perceived as more environmentalist than the young activist. Greta seems to be associated with radicalism, in spite of having similar discourses as Jane Fonda in real life and having an identical radical speech in both experimental conditions of the study.

The results obtained in this first study may arise from the real personalities used, which may have influenced the participant's perception due to the characterization of both activists in the media, namely towards Greta Thunberg. In fact, Greta is a well-known environmental activist covered by international press and social media, gaining visibility by society (Murphy 2021). Due to this aspect, a second study allowed us to verify if the results of Study 1 were based on a general perception of a young environmental activist, or in fact the personality or charisma of the specific activists chosen. Thus, a second study was conducted, using fictional characters instead of two well-known activists.

The results show that the only condition where a significant result was found was the one expected: on the trustworthiness dimension, in which the young activist was perceived as less moral/trustworthy in comparison with the adult activist. There were no significant differences in warmth or competence. These results suggest the existence of a relocation or replacement of the penalization towards another stereotypical dimension. More specifically, it is not possible to penalize the activist in the competence dimension because the person is

an activist (activists considered to be competent) (Castro et al. 2017), and it is not possible to penalize in the warmth dimension because it is a young person (youth being associated with high warmth) (Fiske and Dupree 2014). These results suggest that there may be a relocation of the stereotype towards the morality dimension, discrediting the activist in this aspect. This study highlights that morality/trustworthiness can be an important dimension regarding social perception, when compared with the original dimensions of the SCM, corroborating previous proposals in this sense (Landy et al. 2016; Leach et al. 2014).

This study contributes to a better understanding of stereotypes towards a notable group of emerging, young environmental activists. In this sense, it will be crucial to understand how this generational dynamic is understood and influences the rest of society in terms of commitment to sustainable behaviors (Chazan and Baldwin 2019). These studies are crucial, as they contribute to understanding the lack of identification and apathy towards activists in general, as well as the impression that society has towards young activists in particular. The study of these aspects may also contribute to understanding why environmentalists have difficulties in promoting social change, at least at their expected pace (Klas et al. 2019). These findings help to inform strategies for activists to be more influential and effective in their speeches.

Additionally, this study also has theoretical implications regarding the SCM, where it is noticeable that trustworthiness stands out as an important stereotypical dimension, being even more distinctive than competence or even warmth to form stereotypical impressions about young activists (Rosa and Farinha 2022) Thus, morality/trustworthiness deserves attention in futures studies. In the case of young activists, the stereotypical attributions found assume particular importance. They are considered, in a way, an avant-garde force in pro-environmental movements (Murray 2020), but they seem to be demoted from their power or care by the way they are perceived. Indeed, the combination of high competence and low warmth that characterizes activists is typical of powerful groups—the ones fueling envy reactions. On the other hand, the combination of high warmth and low competence that characterizes youth is typical of powerless groups—the ones fueling paternalistic reactions (Fiske and Dupree 2014). Our results suggest that young activists do not benefit from either kind of reaction but are rather dismissed as untrustworthy (unlike adult activists). This could contribute to generational tensions between younger and older ones. In fact, one of the features of generational tensions from the young towards the old is the prescription of succession, i.e., that the old should know when to give room to the younger and should not vote on issues that will not affect them in the way they will affect the young, among other aspects (North and Fiske 2012). The dismissal of contributions to the climate debate by the young might result in future social cryptomnesia (Butera et al. 2009), when a minority group manages to influence the majority but takes no credit for it and continues to be derogated as a group.

Despite the contributions, the well-known activists used in Study 1 can be considered a limitation in this research. In fact, Greta Thunberg may be an easily identifiable figure, due to her representation and visibility in the media, unlike Jane Fonda, at least to a lesser extent. Additionally, the studies only intended to manipulate the age of activists, but gender was not considered and was kept constant. The gender of the young activist may allow for different inferences, since care and protection for the environment are traits associated with female characteristics (Swim and Geiger 2018). In this sense, it would also be interesting to explore differences in the perception of activists depending on their gender.

Moreover, our samples were disproportionate in terms of gender. While representative samples are not crucial for experimental designs (where internal validity is the core), the fact that our sample is biased towards females might entail limitations in terms of external validity (generalizability). In some way, we might have provided a more conservative test of our hypotheses by having a predominantly female sample making judgments about female activists, because the activists were members of their ingroup in at least the gender social category. However, future studies should have a more balanced gender composition to enable fine-tuned gender differences.

We also highlight the fact that a pre-test was not carried out regarding the choice of the adult activist in Study 1. In fact, at the time of the study development, several weekly protests were taking place under Jane Fonda's leadership, called "Fire Drill Fridays". She became quite popular as an environmental activist, being mentioned alongside names such as Greta Thunberg and, therefore, she was considered a fitting choice as the adult activist personality for the study." However, it would have been relevant to develop a pre-test in order to understand which adult female environmental activist personality would resonate best for the study and could be consensually considered as an adult in comparison to Greta Thunberg.

Undoubtedly, climate change is a complex issue, and equally complex are the social groups associated with climate action and concern. For instance, minority groups are perceived by the general public as unconcerned, but when questioned, they are even more concerned than majority groups regarding environmental issues (Pearson and Schuldt 2018). Thus, future studies could address several characteristics other than age and gender. For instance, characteristics such as educational status, economic wealth, and race/ethnicity, could be relevant candidates for research regarding appraisals of activists with those characteristics. A better understanding of these characteristics will be very important in the future, as activist groups could choose wisely whom to select as a spokesperson in speeches, for example.

In conclusion, addressing climate change requires joint action by multiple stakeholders in a strategic and coordinated way (Geiger et al. 2019). However, given the stigmatization suffered by environmental activists, there is a tendency to not affiliate with this social group (Stuart et al. 2018). Additionally, the media representation of young activists conveys the idea that young people are inexperienced and unable to defend their interests (Bergmann and Ossewaarde 2020). Given that people do not wish to be perceived negatively through the groups they belong to (Tajfel and Turner 1979), how a group is perceived becomes fundamental in the identification and involvement in behaviors that are normative for this same group (Klas et al. 2019). Thus, it is crucial to continue the study of activists and their influence (Jahng et al. 2014). The present research aimed to contribute to this much needed knowledge.

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