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Blackness in Brazil: Publications in behavior analysis

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Abstract

Quantitative data has been revealing differences between blacks and non-blacks regarding violence in Brazil. This fact opens space to discuss racism. Authors have been pointing out that there is a need to consider historical aspects, such as slavery, to understand the current stage of the phenomenon. This study aimed to discuss the contribution of Behavior Analysis, through its studies, to the construction of non-racist behaviors. Having the last 20 years as a time frame (2000-2020), a search and a selection of studies that contained the keywords Racism, Racial, and Behavior Analysis were carried out in the CAPES Journals database, from Brazil. The found studies discussed tools for measuring implicit racial bias as well as ways of intervention. It was concluded that Behavior Analysis, although an effective science for behavior change, still needs to increase its production on racism.

Keywords: racism, structural racism, Behavior Analysis, stimulus equivalence, implicit racial bias

NEGRITUDE NO BRASIL: PUBLICAÇÕES EM ANÁLISE DO COMPORTAMENTO

Resumo

Dados quantitativos revelam diferenças entre negros e não negros em relação à violência no Brasil, e esse fato abre espaço para discutir o racismo. Autores apontam que há necessidade de levar em consideração aspectos históricos, como o escravismo, para compreender a situação atual do fenômeno. Este estudo teve como objetivo discutir a contribuição da Análise do Comportamento, por meio de seus estudos, para a construção de comportamentos não racistas. Realizou-se busca nos Periódicos Capes, e selecionaram-se estudos produzidos nos últimos 20 anos (2000-2020) que contivessem as palavras de busca racism, racial e Behavior Analysis. Os estudos discutiam sobre ferramentas para mensuração de viés racial implícito e também formas de intervenção. Conclui-se que a Análise do Comportamento, embora seja uma ciência eficaz para mudança de comportamento, ainda precisa aumentar sua produção sobre o racismo.

Palavras-chaves: racismo, racismo estrutural, Análise do Comportamento, equivalência de estímulos, viés racial implícito

NEGRITUD EN BRASIL: PUBLICACIONES EN ANÁLISIS DEL COMPORTAMIENTO

Resumen

Datos cuantitativos han revelado diferencias entre negros y no negros con respecto a la violencia en Brasil. Esta realidad abre espacio para discutir el racismo. Autores vienen señalando que es necesario considerar aspectos históricos, como la esclavitud, para comprender el escenario actual del fenómeno. Este estudio tuvo como objetivo discutir la contribución del Análisis del Comportamiento, a través de sus pesquisas, a la construcción de conductas no racistas. Se realizaron una búsqueda y selección de estudios que contenían las palabras clave racism, racial y Behavior Analysis, en la base de datos Perió-

dicos Capes, de Brasil, escritos en los últimos 20 años (2000-2020). Los estudios encontrados discutieron herramientas para medir el sesgo racial implícito, así como formas de intervención. Se llegó a la conclusión de que el Análisis del Comportamiento, aunque es una ciencia eficaz para el cambio de conductas, todavía necesita aumentar su producción sobre el racismo.

Palabras-claves: racismo, racismo estructural, Análisis del Comportamiento, equivalencia de estímulos, sesgo racial implícito

Data included in the *Violence Atlas: 2019* (*Atlas da Violência: 2019*) (2020), from the Institute for Applied Economic Research (Instituto de Pesquisa Econômica Aplicada – IPEA), revealed that, in Brazil, in 2018, 75.7% of victims of homicide were classified as black or *negras* – the Brazilian classification that encompasses the categories of black (*preto*) and brown (*pardo*) people. Between 2008 and 2018, there was an increase of 11.5% in the rate of homicide for blacks. On the other hand, for non-blacks, there was a decrease of 12.9%. Regarding police violence, data from the 14th edition of the *Brazilian Yearbook of Public Safety* (*Anuário Brasileiro de Segurança Pública*), created by the Brazilian Forum on Public Safety (Fórum Brasileiro de Segurança Pública – FBSP), published in 2020, revealed that, in 2019, 79.1% of people killed in police interventions were black. It is worth noting that, in the first semester of 2020, the number of deaths by police intervention increased by 6%. These data point to an issue discussed by Mercer (2020): police kill more black people than people from any other race.

Understanding the issue of blackness in Brazil should begin with a return to the era of slavery. Moura (2014), in his vast contribution to the understanding of structural racism, uses the term *full-fledged slavery* to characterize the period between the 16th century (beginning of the international trafficking of enslaved Africans) and the Eusébio de Queiroz Law (end of the international trafficking of enslaved Africans), in 1850, when the slave trade almost entirely dominated the country's social, political, and economic dynamics. Interpersonal relationships in this period, therefore, had as essence the mode of production between two active classes: slaves and masters.

Similarly to Moura (2014), Almeida (2019) characterized this period as a historic milestone for the idea and practice of racism as a social structure in Brazil – and he complements his analysis by highlighting the philosophical aspect of full-fledged slavery, which occurred during the Age of Enlightenment, during which human beings were not only subjects but objects of knowledge. Therefore, in this period, people from different social groups were classified based on physical and cultural characteristics: the European was the ideal; there was differentiation between civilized and wild; and later between civilized and primitive – the further away from the European standard, the more primitive a person was. In this manner, according to the author, the concept of race – in addition to being a mechanism for classifying people – also justified colonialism by the European people over other peoples. In the words of Almeida (2019), with the "use of reason", Europeans were capable of genocide, as seen in their actions against the peoples of America and Africa:

> The Enlightenment became the philosophical foundation of great liberal revolutions, which, in the pretext of instituting freedom and ridding the world of the darkness and prejudices of religion, would curb wars against abolitionist institutions and the traditional power of the nobility. The English, American, and French revolutions were the apex of the process of re-

organizing the world from a long and brutal transition from feudal societies to a capitalist society, in which the philosophical creation of the universal man, universal rights, and universal reason was fundamental for the victory of civilization. This same civilization that, in the following century, would be taken to other places in the world, to the primitive peoples, to those who did not yet know the benefits of liberty, equality, Rule of Law, and the market. And it was this movement of taking civilization to where it did not exist that resulted in a process of destruction and death, of pillage and disgrace, done in the name of reason, and which was called colonialism (Almeida, 2019).

Following the same sequence of the events described by Almeida (2019) and Moura (2014), racial ideology emerged in the midst of the 19th century, understood as the politics of racial differences and their roles in society. In this period, Europeans needed to justify the exploration of certain peoples, such as Africans and Asians, considered to be "barbaric" and "primitive", while Europeans saw themselves as "civilizers" (Oliveira, 2008). What sustained these beliefs were biological premises based on positivism and erroneous interpretations of natural science theories, such as social Darwinism and the Mendelian theory, which were also used as justifications to curb miscegenation (Oliveira, 2008; Romero, 2015), since blacks were seen as immoral, lascivious, and violent (Almeida, 2019). These are stereotypes that are still present, as Mercer (2020) noted when exposing the police violence to which black people are currently subjected.

When the Eugenics Society of São Paulo emerged in Brazil, in 1918, it defended the country's need for scientific direction and to be planned according to racial parameters so as to foster national progress. This required a solution to Brazil's "racial problem" and to find a role for blacks and mixed peoples (Romero, 2015). For the eugenicists, according to Romero (2015), there was no need to stop the process of hybridization, but rather to "inject" white blood into the population by crossing mixed peoples with Europeans. In this manner, after the fourth or fifth generation, the country would have a white population. Miscegenation, therefore, appeared in nationalistic discourse as a "social cure" and perpetuated a racial hierarchy, according to which the closer to white, the better; and the closer to black, the worse, for both biological factors and cultural practices.

It is clear, therefore, why, for Almeida (2019), the understanding of racism is linked to the power relations established between groups, in which one group dominates another by way of institutions. In treating the institutional aspects of racism, the author highlighted that institutions reproduce racism and structure political, economic, legal, and familial relations.

Behavior Analysis and the understanding of racism

Considering the historical aspects presented thus far and the current situation of the black person in Brazil, there is a need for scientific proposals that can change this social reality. Behavior Analysis can be one of the sciences capable of both helping to explain what maintains this phenomenon as well as creating mechanisms for change.

A behavior-analytic perspective requires taking into consideration that any operant behavior was established by reinforcement, and institutions can be seen, according to Skinner (2003), as controlling agencies responsible for organizing contingencies for its members through rules and laws. Unlike what Almeida (2019) discussed about institutions, agencies of control, in the behavior-analytic view, produce and maintain social contingencies. In this manner, more egalitarian rules could be formulated by way of new laws and sanctions for non-compliance.

The power relation described by Almeida (2019) could be understood by a behavior analyst in terms of the social control exerted by an economic group. For Skinner (2003), control is always present, and every behavior is controllable, including social relations – regardless of whether this is identified or not. However, power relations are related to the aversive control experienced by the black population in contrast to the white population, added to the fact that the controlling agencies promote rules benefiting whites in detriment to blacks, a fact that has been observed in all controlling agencies cited by Skinner (2003) – government, religion, culture, and education.

Behavior Analysis does not identify race as a relevant controlling variable for explaining behavior. However, in 1994, the book *The Bell Curve*, by Richard Hernstein and Charles Murray, was published, and it revived the ideology of the inferiority of blacks based on their intelligence coefficient (IQ). According to the authors, intelligence test results showed that black people have lower IQs than white people. Nevertheless, it is important to point out that such tests seem to disconsider the social trajectory of oppression, negligence, and inequality in the lives of black people – a trajectory which is highlighted by Moura (2014, p. 35) as the underpinning for understanding race:

> We call *full-fleged* slavery the period of slavery in Brazil that extends from 1550 until more or less 1850, when the international trade of African slaves is legally and effectively abolished. This covers, therefore, the entire colonial period, the reign of D. João VI, the empire of D. Pedro I and D. Pedro II. During this long period of over three hundred years, Brazil structures and boosts the slave mode of production with all of the characteristics that will determine the basic behavior of the two classes that are fundamental to its social structure: masters and slaves (Moura, 2014, p. 35).

The Bell Curve received criticism from the community of behavior analysts due to its Eurocentric and racist ideal. In one of these criticisms, Andery and Sério (1997) analyzed the statements contained in the book through a lens based on the philosophy of radical behaviorism – and they demonstrated the existence of erroneous methodological and ethical factors, such as the measurement of what is called "intelligence".

Racism is prejudice, discrimination, or hostile behavior directed at people of a race or ethnicity that is different from the dominant one. Racist systems establish a hierarchy between races/ethnicities, in which one is exalted to the detriment of the others, and can advocate for the isolation or even the extermination of the other races/ethnicities (Houaiss, 2001). Skinner (2003, p. 325) defines social behavior as "the behavior of two or more people with respect to one another or in concert with respect to a common environment". Therefore, it is possible to say that it occurs in interlocking behavioral systems. Thus, the first consideration to be made is to understand racism as social behavior: an operant contingency in which a person has the function of a discriminative stimulus and/or consequence (reinforcing or aversive) regarding another.

An attempt at a behavioral and operant definition of racism based on Sidman (1995) leads to the possible conclusion that the phenomenon involves a response class, identified as racist, that affects and is affected by the environment. The contingencies would be aversive and applied to a socially harassed group, with the aim of maintaining it in a submissive position, with a generalized reinforcer for those who apply them. This type of control would generate escape and avoidance responses by those who are subjected to it and counter-control responses directed at the controlling group. It is also safe to assume that racist responses, because they are not innate, were learned and transmitted over time within a social group, having been constructed upon social and verbal relations established in a verbal community.

Another possible analysis of racism offered by behavior analysts is to understand it as a cultural practice. A cultural practice is the repetition or maintenance of actions over generations or within a generation: even after the substitution of its members, a certain group continues to behave itself similarly to those before them. One can say, therefore, that older members teach newer members how to act. This constitutes the propagation of similar behaviors in which one individual affects another individual so as to produce a behavior that is similar to their own or to another's, and the affected person tends to later affect other individuals, further propagating the same behavior (Sampaio & Andery, 2010).

To explore the transmission of racism, it is necessary to focus on how this practice is learned, taking into consideration the explanatory model of Behavior Analysis. In this regard, racism can be learned by respondent and operant learning. Respondent learning can occur when stimuli are paired: a word paired with an aversive stimulus, for example, can have the function of a conditioned stimulus and elicit responses that are similar to those elicited by the

original stimulus. For example, words like *black*, presented in aversive situations involving fear, disgust, or aversion can, by themselves, generate emotional reactions similar to those presented on their own in future situations (Arhin & Thyer, 2004).

In turn, operant learning by imitation can occur in the acquisition of some racist responses, primarily in the repertoire of children and young people. If a child constantly sees their parents emit these responses, chances are they will repeat this behavior due to the high probability of being reinforced in the same way as their parents. Operant learning by positive reinforcement can occur when a child receives the approval of their social group after offending a black person. As a result, they will later repeat similar responses in the presence of black people. As for learning by negative reinforcement, in which the response increases in frequency when it eliminates an aversive stimulus, a person will tend to avoid emitting responses in the future that were punished in the past — for example, listening to music by black people and, as a consequence, being ridiculed by friends or acquaintances (Arhin & Thyer, 2004).

Finally, racist responses can emerge from only a few stimulus relations that were not directly trained (stimulus equivalence): if, for example, a person learns the relations *black-poor* and *poor-thief*, the relation *black-thief* will probably emerge, even if it was not directly taught (de Rose, 1993).

Considering the aspects presented about racism and the role of Behavior Analysis in discussing this phenomenon, the aim of this study was to discuss possible ways in which Behavior Analysis can contribute, by way of applied studies, to the creation of non-racist behaviors.

Study selection

The documents that helped fulfill the aim of the present study were selected in the digital library *CAPES Periódicos*, which includes databases relevant to psychology, such as PsycINFO and BVS-Psi. To select the articles, the authors used the keywords *Racism, Racial*, and *Behavior Analysis*, which describe the focus of the proposed discussion.

The procedure involved two searches. The first one required *Racism* to be contained in any field; the boolean operator AND; and *Behavior Analysis*, the exact phrase, and in any field. The second search required *Racism* to be contained in the title; the boolean operator AND; and *Behavior Analysis*, the exact phrase and in any field. The authors selected articles from the last 20 years (2000-2020) after having read their abstracts.

Inclusion criteria for the articles included being written in Portuguese or English; theoretical-conceptual; review or applied experimental studies; written by behavior analysts; containing content directly related to racism or racial prejudice against black people; and all articles were published in peer-reviewed journals.

As for exclusion criteria, articles were not selected if they did not study the black race under the lens of racial discrimination (e.g., same-sex relationships between African Americans; African Americans and hypertension).

The search resulted in five articles. An independent researcher carried out the search in the same database and with the same keywords for both searches, which resulted in a procedure integrity index of 80%, as the researcher identified four of the five selected articles.

What does Behavior Analysis have to offer to help understand the racism directed at blacks?

The exclusion of many articles indicated that ethno-racial relations are primarily studied by sciences connected to the social and political fields. As for Behavior Analysis, despite having different technologies and areas of work, this topic is less-studied, when compared to others, such as verbal behavior and atypical development.

The articles "Combining the Implicit Relational Assessment Procedure and the Recording of Event Related Potentials in the Analysis of Racial Bias: A Preliminary Study" and "Exploring Racial Bias in a European Country with a Recent History of Immigration of Black Africans" were written by the same authors (Power et al., 2017a, 2017b), and both studies investigated if a software called IRAP could effectively measure implicit bias. The phrase *implicit bias* involves the idea that certain responses, when overt, can be punished. A person would therefore avoid emitting them, which does not prevent, however, the individual from emitting them covertly. In other words, racist responses can be divided into: 1. implicit racial bias (covert), such as thoughts, preferences, and so forth; and 2. explicit racial bias (overt), such as verbal responses and physical aggression.

It is worth noting that implicit bias also includes responses that the person does not intend to emit – not to avoid punishment, but due to not knowing the controlling contingencies they are subjected to. For example, saying that people are all the same, but, after seeing a black person, feeling uncomfortable without knowing why – this is a possible case of respondent learning (Arhin & Thyer, 2004). In addition, there seems to be a direct relationship between implicit racial bias and structural racism, since, as pointed out by Moura (2014) and Almeida (2019), racial relations dominate interpersonal relationships. Therefore, people would learn how they should behave and these behaviors perpetuate these relations until today. In this manner, one can say that people will tend to stay biased while racism is maintained as a structure.

The software used was the Implicit Relational Assessment Procedure (IRAP). It measures certain relations whose results participants are usually unable to manipulate. It assesses a relation's consistency: the faster a person responds, the more consistent a stimulus relation is considered to be and vice versa. Following this logic, the program presents the image of a

black person and a positive adjective, followed by the image of a white person and a negative adjective. These stimuli then alternate: the black person is also presented with negative adjectives, and the white person appears alongside positive adjectives. Participants are told to click on *yes* when the relation is black/positive and on *no* when the relation is white/positive, and vice versa. A relation is considered to be more consistent when a person answers faster for that relation compared to another one. A negative racial bias toward black people is identified when a person responds faster to a black/negative relation than a to white/negative relation or faster to black/negative than white/negative.

Both studies (Power et al., 2017a, 2017b) presented relevant results regarding IRAP and suggested that the software is an effective mechanism for this type of measurement. For Behavior Analysis, it is also considered to be a relevant instrument in the field of stimulus control, as it assesses a property of a stimulus related to other properties of other stimuli, always taking into account the participant's pre-experimental history with the stimuli. The fact that the instrument measures response latency contributes to the participant having less control over the results. Therefore, it seems that, for behavior analysts interested in studying racism in society, IRAP is quite pertinent as a tool for measuring change.

A further search resulted in two other articles that followed this type of intervention, confirming the use of this instrument by behavior analysts. The first study was by Carvalho and de Rose (2014) and had the objective of verifying the change in bias between black men and negative symbols in children from 7 to 10 years of age. The following were used as stimuli: abstract figures, photos of black men, photos of white men, photos of cartoon characters, as well as positive and negative thumb signs (thumbs up and thumbs down). The procedure was composed of baseline, training, and testing and began with the application of the Semantic Differential Scale to assess how the children evaluated blacks and whites.

After a negative bias toward black people was confirmed in certain children, who were chosen to participate in the study, the faces test began (images of white or black men and abstract symbols related to positive or negative gestures). This test aimed to assess (through the child's choice of one of the thumb positions) the relation the participant established between black or white faces and reinforcing or aversive stimuli.

To change racial bias, a procedure was used to initially train the relations between the thumb up or thumb down signs and the abstract figures (AB). Next, participants were taught the relations between the following stimuli: abstract figures and white or black faces (BC). Finally, mixed training took place between thumb signs and abstract figures, and between abstract figures and photos of people (AB/BC). The last phase of the study was designed to verify whether the training had produced changes in comparison to the baseline. The results indicated that, for the majority of participants, there was no change in bias. In other words, it was not possible to form classes between positive symbols and black men, which suggests

resistance to reversal, possibly because the children were returning daily to an environment that made them learn these skewed relationships. As highlighted by Almeida (2019), institutions reproduce racist behaviors that are structural and families and schools are part of these institutions. Thus, teaching could perhaps not be enough to compete with the social environment. Another possible explanation for this resistance to reversal is related do with the possibility that the positive and negative signs did not possess adequate meaning – reinforcing or aversive function.

Mizael et al. (2016) had the same investigative concern when they conducted a systematic replication of Carvalho and de Rose's (2014) study and aimed to verify whether teaching new equivalence relations would be able to reverse pre-experimental classes in children with negative racial biases toward black people. Put another way, the authors wanted to see if training by pairing pictures of black people with positive symbols (reinforcers) could reverse the initial bias.

Unlike Carvalho and de Rose's (2014) method for participant selection, Mizael et al. (2016) used the Self-Assessment Manikin (SAM) with the objective of assessing affective experiences in the face of images. The participants were given sheets of paper with the image of a white or black person on top. At the bottom, there were five drawings of dolls representing faces from happy to sad, and the required response was to place an X under the doll that corresponded to the participant's feelings toward the image of the person. Thirteen children were selected, both male and female, with ages between 8 and 10 years, who paired the faces of black people with dolls with sad expressions. The chosen participants moved on to a second phase of the study, called the AC3 Test, in which the sample stimuli were images of a thumb with a positive or negative gesture, and the comparison stimuli were images of white people, black people, or abstract stimuli. Participants were to click on the picture of people that matched the thumb gesture. This established the baseline for the participants who showed bias. Only three participants were black, and the remaining ten were white. The participants were divided into two groups. One group worked with stimuli presented in the same screen (Simultaneous MTS – SMTS), and the other with a 2-s delay in stimulus presentation (delayed matching to sample – DMTS). As stimuli, four pictures of black people, four pictures of white people, one positive thumb, one negative thumb, and three abstract stimuli were used.

The next step of the procedure was pre-training, with the goal of familiarizing the participants with the Matching to Sample (MTS) procedure. In this phase of the training, the 13 participants were distributed into two groups (SMTS and DMTS), and the procedure was similar to that of Carvalho and de Rose (2014), in that the following relations were taught: AB, thumbs and abstract figures; BC, abstract figures and black people; and ABBC, a mixture of the latter two relations. After each training, a symmetry test was applied (for example, if AB had been trained, the test would be BA); and, after the training phase, an equivalence test was

carried out. The authors expected that, in front of the positive thumb (A1), the figure of a black person would be chosen (C1), and vice versa (relationship not previously trained). Finally, to check if the bias found in the baseline evaluation had changed, the AC3 Test, SAM, and IRAP were repeated.

In Mizael et al. (2016), all chosen participants, who related blacks to negative symbols, changed their answers to blacks and positive symbols, a result which had not appeared in Carvalho and de Rose's (2014) study. Although the participants had been divided into two training groups, the results were quite similar in both groups. This study proved to be of great relevance for racism research, because, besides showing an implicit variable (pre-experimental class reversal in children with negative racial biases toward black people), difficult to measure using procedures other than stimulus equivalence and IRAP, the study also showed a way to change the socially constructed relationship between negative stimuli and black people. These aspects support the importance of extending the study to new participants to increase the generality of the results obtained by Mizael et al. (2016). Another point indicated in the authors' results is the need to investigate whether there will be generalization to new social environments outside of the experimental setting and whether these would be maintained over time.

Lastly, the last selected study – "Can Behavior Analysis Help Us Understand and Reduce Racism? A Review of the Current Literature" – is a theoretical article, and Matsuda et al. (2020) proposed ways in which members of the scientific community of Behavior Analysis can learn about racism from a behavioral perspective. The authors begin by explaining the differences between racism, prejudice, and bias; offer an explanation about the learning process, also based on Arhin and Thyer's (2004) proposals; continue to discuss mechanisms for measuring bias, such as IRAP, and ways of reducing it based on the research by Carvalho and de Rose (2014), and Mizael et al. (2016); and they end presenting studies that point to acceptance and commitment therapy (ACT) in conjunction with mindfulness as ways to decrease the dominance of rules over problem behavior – in this case, racist responses. The authors claimed they had not found a possible tool for the solution of racism in the alternative proposed in the study, and state that, for the solution, it is important that the behavior analyst explores the widest range of behavioral interventions, both traditional and contextual, as this would increase the chances of finding effective interventions for changing racist behavior.

This article, being a review, describes different aspects from the other studies presented so far. However, it seems to be the work that best explains racism within the science of behavior – and within basic research. The authors were engaged in analyzing concepts from Behavior Analysis on the subject of racism and prejudice, as well as in presenting third generation behavioral therapies in this discussion of the phenomenon. What is observed in this study is that the procedure of changing racist behavior starts with the individual; the de-

scribed interventions tend to change the participant's relationship with racism and are expected to generalize beyond the experimental setting.

Taking into consideration the aspects of the controlling agencies described by Skinner (2003), called institutions by Almeida (2019), it can be said that an intervention outside of the realm of experimentation would be directed at public policy formulations, by means of contingent rules; more specifically, social norms transcribed as laws and expected behaviors, for example. In this way, social change could be achieved together with individual change, which would be more effective in transforming racist behavioral patterns.

Conclusion

Behavior Analysis is a science capable of producing change in social behaviors by predicting and controlling variables related to behavior, and, even though only a few studies were presented – which points to a lack of research in the field –, the present study shows that Behavior Analysis makes it possible to intervene in the phenomenon of racism.

According to Mercer (2020), in the year 2020, several protests against police violence on black people took place, triggered by the death of George Floyd, who was murdered by asphyxiation by a white police officer in Minnesota, in The United States. Cases such as Floyd's are not isolated – and his death generated protests and the Black Lives Matter movement around the world, even in a period marked by the Covid-19 pandemic, during which social distancing became the primary measure for controlling the spread of the Sars-CoV-2 virus; this illustrates the urgency of these protests.

Facts like these indicate the relevance of addressing the issue of racism and intervening in the phenomenon. However, the contribution of Behavior Analysis, through publications, has been so scarce that it is still unable to offer effective procedures for changing racist behavior. There is, therefore, a need for new studies that involve a larger number of participants and that look toward more diverse forms of interventions. Furthermore, considering studies about racial bias, one must take into account the establishment of generalization of the participant's behavior beyond the research setting.

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