Implicit Theories in Relationship with Social Judgments and Aggression Behaviors. Evidence Starting from Carol Dweck's Theoretical Framework

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Abstract: Implicit theories of personality fall under social-cognitive theories and underlie studies that have examined the perspectives, beliefs, and judgments that people make about certain phenomena or behaviors. Although the theoretical model of implicit beliefs was originally categorized as theories about the self, the authors Dweck & Leggett (1988) extended it, applying it to the field of social judgments about the characteristics of other people. In the present paper we aim to illustrate children’s and adolescents’ entity and incremental beliefs about aggression. In accordance with this purpose, we conducted a theoretical foray into implicit theories and their implications in the area of social judgments in an attempt to capture how implicit beliefs about aggression are projected into the social interactions of children and adolescents. We believe that our remarks and findings can be important resources for educational factors in the effort to improve the effectiveness of programs to prevent aggressive behaviors and attitudes in children and youth.

Keywords: implicit theories; social judgments; aggression behaviors; Carol Dweck's theoretical framework.

Introduction

Social cognition, as the field of social psychology, analyzes the way information about others and social contexts is received, processed and stored (Boncu & Holman, 2019, p. 13). Morton and Frith (1995) mention the fact that the term cognition from the phrase „social-cognitive psychology” or „social cognition” refers to the search for explanations that justify the connection between neural processes and behavior, knowledge (cognition) thus also including affective processes, such as emotions or motivation. The theories subsumed under the field of social-cognitive psychology have as their point of interest knowledge as processing of relevant stimuli for understanding individuals and the interactions between them in order to explain human behavior (Happé et al., 2017).

Encoding of social experiences, social memory representations, and stereotypes or prejudices are among the topics of interest in social cognitive psychology. Social judgments take the form of opinions, thoughts or beliefs about certain human phenomena or characteristics. A more recent and widely applicable theory is Dweck & Leggett's (1988) model. Although the work of the authors focused on the analysis of adaptive and undesirable behavioral schemes based on thought patterns related to the malleability of intelligence, in the secondary plan the works whose purpose was to articulate the model in order to outline a general character, which can be comprehensible and applicable to a wider range of phenomena. The social-cognitive approach to motivation and personality focuses on investigating the reasoning behind how people develop reactions and responses to challenging self- or other-related situations (Dweck, 1999; Dweck & Master, 2009). The main concept of the theoretical model refers to implicit theories about human attributes or abilities. By the notion of implicit theories, the authors refer to the more or less articulated beliefs that people have about the nature of human characteristics.

The beginnings of implicit beliefs can be traced back to the work of Kelly (1955), the author of „Personal Constructs Theory”. His work supports the idea that each person has their own mental framework through which they perceive the world, thus people develop their own perceptual patterns or schemas, which they later use to interpret information and experiences (apud. Sechrest, 1963) in social contexts. Another synonymous term found in the literature is that of lay theories, a representative concept for research that has investigated topics from the spectrum of human interactions (Levy, West & Ramirez, 2005), such as racism, evaluated in terms of prejudice and tolerance or attitudes towards certain social categories (Levy & Karafantis, 2008).
The relevance of the theoretical framework of implicit theories derives from the implications drawn from studies that support the fact that these implicit, incremental and entity views underlie social judgments and shape social attitudes and behaviors (Chiu et al., 1994; Hong et al., 1997; Dweck et al., 1995; McConnell, 2001), an aspect that we will analyze in the following chapters.

Implicit theories - general characteristics. Implications in the field of social judgments

The original model of implicit theories delineates two main dimensions that represent patterns of interpretation of human behaviors, abilities or characteristics: entity theories (ET) - assume a fixed, inert view of characteristics and incremental beliefs/theories (IT) - a malleable, dynamic view (Dweck, Chiu & Hong, 1995; Dweck, 1999; Yeager et al., 2013). These different models of perception of the flexibility of human attributes have been shown to be valuable predictors of cognitions, affects and behavior, being investigated mainly in the field of school motivation (e.g. Liu, 2021; Camacho et al., 2023; Dinger & Dickhäuser, 2013), of social interactions (e.g. Spinath, 2003, Froehlich et al., 2016; Dweck, 2019) and mental health (e.g. Schleider & Schroder, 2018).

A considerable body of research has examined the relationship between students' implicit beliefs about intelligence and academic achievement (e.g. Costa & Faria, 2018; Vechiu & Popa, 2022, for systematic reviews). In parallel, other studies have investigated parents' or teachers' opinions about the background of children's cognitive abilities as explanatory factors of attitudes related to children's schooling (Stern & Hertel, 2020). In this sense, studies indicate that in the specific terms of the entity mentality people explain the favorable results on account of a high, innate intellectual capacity (Dweck, 2019).

On the other hand, deficiencies tend to be explained by a deficit of intellect or associated with limited abilities. In contrast, incremental beliefs are based on the principle of continuous development of capabilities or skills through work and interest. The key concepts that give consistency to explanations in the case of school achievement are associated with the idea of malleability of a skill or trait. Causality follows the principle of flexibility of skills in terms of effort or lack of effort. Performance is translated not through a given, but through persistence and interest.

Thus, a student with a growth mindset will perceive a failure situation as a challenge that he/she will overcome as long as he finds emotional and cognitive resources to remedy the weaknesses or the deficit in...
the present moment (Mangels et al., 2006; Lüftenegger & Chen, 2017). Studies show that students with a growth mindset demonstrate increased resilience to stressful situations, have better emotional and cognitive regulation, and are more motivated to improve their skills and abilities (Wang & Ng, 2012; Burnette et al., 2013; Martin et al., 2017).

In short, while entity theorists focus on immutable features, incremental theorists analyze phenomena and situations dynamically, focusing on the process that led to a certain outcome. In other words, the entity mindset will lead to the attribution of judgments that we can identify as labeling (e.g., I got a low grade because I'm incompetent vs. My colleague always gets high grades because he's smart!), while the incremental view will follow the process and its consequences in dynamic terms (I got a low grade because I didn't work hard enough! I got a high grade because I spent enough time preparing for the exam!).

The domains of applicability of implicit beliefs have expanded, and the two thinking models have been investigated in relation to other human characteristics such as morality, stress reactions, anxiety or depression (Miu & Yeager, 2015; Killen et al., 2010; Yeager et al., 2016). In the field of social judgments, implicit theories about human traits take the form of "unconscious inferences" (Plaks, 2017, p. 260) and have proven relevant in studies that have analyzed social phenomena, such as stereotyping or the interpretation and coding of aggressive behaviors.

According to Erdley & Dweck (1993), people who are guided by entity beliefs tend to attribute fixed traits to a particular person even when relatively few contextual details are known and, implicitly, to make behavioral predictions with fairly high certainty about to other people. Thus, the characteristics or traits acquire a stable character and are considered stable over time. On the other hand, individuals who hold a malleable view of personality integrate a behavior into a situational framework, trying to analyze the behavior by referring to the context and its determinants. Thus, they understand that a certain way of acting is not necessarily the result of a fixed, innate trait, but may be the consequence of several dispositional factors. Traits are associated with broader terms that are used tentatively.

Dweck & Hong (1995) were concerned with studying the causal relationship between implicit beliefs and children's judgments or reactions to certain behaviors categorized as immoral. When faced with justifying a given situation (e.g., a man stealing a loaf of bread), it has been observed that people with an entity perspective on the illustrated behavior resort to identifying some of the person's moral traits ("He is a thief!"), while that people who hold an incremental theory of moral character try to identify the purpose,
need, or intention that generated the reaction/behavior in question („He stole because he was hungry or had a large family.“). The research approach used in this case could lead to interesting findings regarding the interference of implicit beliefs and children’s moral development by analyzing responses to situations presenting moral dilemmas similar to Kohlberg’s.

Another interesting aspect is that people who associate fixed labels with a behavior have expectations that it will be recurrent and generalize a trait by associating it with a social group. Conversely, individuals with a malleable view of particularity report this tendency to a lesser extent (Levy et al., 1998; Rydell et al., 2007). These considerations may be relevant for the analysis of patterns related to the thoughts and behaviors of people who have been in situations of aggression or oppression. Following the experiments carried out, Levy et al. (1998) found that perceptions regarding the modifiability of human attributes and characteristics play an important role in the formation and emission of social stereotypes and explain the differences in terms of the amplitude of this phenomenon. Researchers have focused on occupational and societal stereotyping related to ethnic groups. Analysis of the perspective on the malleability of human characteristics and the verbal associations that adolescents made related to certain social groups indicated that both entity-minded and incremental-minded individuals associate both positive and negative traits, equally. For example, for both IT and ET Asians, characteristics such as: intelligent, hardworking, introverted, but also egocentric were highlighted. In the case of the Latins, we find words like violent, indolent, but also good musicians.

Although in the case of both categories of implicit beliefs one finds characteristics with positive and negative connotations, a stronger tendency to attribute them was observed in the case of those who have a fixed perception of the traits. Moreover, according to a complementary study presented in the same work, people with entity beliefs believe that stereotypes are based on innate, inert characteristics of certain categories of people. On the other hand, incremental theorists reported a greater tendency to identify among the explanatory factors of social behaviors or labels situational or socio-cultural determinants. With reference to the entity perspective and the stable and enduring view of human characteristics the findings are not dissimilar, although we could consider the age of the participants as a factor that could lead to different results. Lockhart et al. (2002) noticed that, in general, children have a predisposition towards the immutable perspective, they are of the opinion that regardless of whether the aggressors make promises in the direction of behavioral remediation,
people cannot change, and traits such as aggressiveness or meanness remain recognized as innate.

Along the same line of ideas regarding the age category, in a study that analyzed adolescent perceptions of aggression, Killen et al. (2010) found that high school students report a greater tendency to associate aggressive behavior with a stable trait compared to middle school students. Thus, being in the context of judging an incompletely illustrated situation regarding an unpleasant event between schoolmates (for example, a nudge, pushing or fight), high school students appreciated to a greater extent that that incident was intentional, caused by the heightened aggressiveness trait.

Interesting aspects of investigating the malleability of implicit beliefs in the context of social behaviors and attitudes have also been analyzed in particular conditions of groups involved in long-term conflicts (Halperin et al., 2011). Investigating the relationship between the implicit beliefs of Jewish students in Israel and their attitudes toward Palestinians, the results showed that Jewish students with a growth mindset are more prone to assertiveness and positive views.

**Implicit theories of aggressive behaviors**

The diversity of beliefs that filter information in the field of social interaction is also reflected in the different ways individuals react to and judge social behaviors and phenomena. Aggression or aggressive behavior is the focus of specialists who, for several decades, have been working to clarify the psycho-social constructs behind the attitudes and actions that contempt and harm others. In childhood and adolescence, conflicts with varying degrees of amplitude are frequently experienced, ranging from contempt to physical harm (Yeager et al., 2011).

Interpersonal aggression, manifested in a multitude of forms, constitutes a major problem for society, with negative implications for both victims and aggressors (Dam et al., 2021). In the view of the authors Garcia-Sancho et al. (2016) aggressive behavior represents a deficiency in terms of social skills or a maladaptive reaction in terms of solving problems in the area of human interactions, with unpleasant repercussions in the development of children and young people. As a characteristic, aggression is defined as „a state of the psychophysiological system, through which the person responds through a set of hostile behaviors on a conscious, unconscious and phantasmatic level, with the aim of destroying, degrading, coercing, denying or humiliating a being or things invested with significance, which the aggressor feels as such and represent for him a challenge“ (Păunescu, 1994, p.15). From the perspective of social psychology, aggression refers to "any behavior adopted by a person with the intention of harming
Aggression as a trait is more likely to predict aggressive actions for individuals who are convinced that they are aggressive, but also for those who perceive this trait to be fixed (Santos et al., 2022).

Analyzing implicit theories of adolescent personality, some authors believe that these perspectives can be modified through intervention programs designed to alleviate rigid judgments that lead to maladaptive reactions. An important finding is that adolescents with entity theory beliefs are more willing to demonstrate social success or avoid situations that could label them as socially inept. In contrast, those who subscribe to an incremental theory are more goal-oriented in learning how to develop their social skills or relationships with others (Yeager, 2017).

The results of these studies converge towards the idea that the social-cognitive perspective can contribute to the efficiency of strategies to prevent aggression in children and adolescents. Citing several authors, Yeager et al. (2013) believe that implicit theories of adolescent personality facilitate the explanation of social failure.

At the same time, the authors noted that the two perspectives on personality characteristics can differently influence behavioral regulation strategies by modeling punitive or retaliatory reactions in response to aggressive behaviors of peers. Analyzing the causes of aggressive behaviors, it was observed that young people who orient themselves in accordance with the immutable perspective on personality believe that the traits of peers are fixed, and aggressors cannot change. At the opposite pole, the perspective of adolescents who believe that people have the capacity to change over time, is associated with the idea that supports the fact that aggressors and victims are able to change their reactions and attitudes. We note that the theoretical model of implicit beliefs could be a useful framework in explaining how young people interpret and react to aggressive incidents.

To test the effectiveness of an intervention in students, Calvete et al. (2019) measured the effects of a program based on the incremental theory of personality on people who were victims of bullying and cyber-bullying (Ercag, 2021). Thus, a number of 1329 teenagers participated in an experimental intervention that was divided into several sections. In the first part, students read a scientific article that included information about people's ability to change, how cognition can regulate behavior and emotions, and the plasticity of neural connections. Afterwards, students wrote three summary sentences about the possibilities for improving human skills and characteristics. In the last part, the participants had the task of describing a situation in which they were victims of marginalization,
exclusion or in which they were disappointed by a person within the school, to then imagine that a colleague experiences similar situations and to write how it could help him to understand that people can change.

The results indicated that such an intervention decreased the intensity of the association between the degree of victimization and aggression. The authors observed a slight tendency to decrease aggressive behavior in students who benefited from the intervention program and, at the same time, a decrease in the tendency to judge the aggressor in terms that denote inert characteristics. In conclusion, interventions that provide students with information about brain plasticity and the modeling of behavioral characteristics can be solutions that optimize undesirable behaviors and, at the same time, decrease the degree of victimization of the bullied.

Other authors have been interested in the predictability of students' reaction to bullying. In this sense, in a research that investigated students' beliefs regarding the possibility of changing aggressive behaviors (aggressors, victims, winners or losers) and in which 219 teenagers from the 9th and 10th grades participated, ages 14-16, Yeager et al. (2011) found that implicit theories can predict how adolescents react/respond to conflicts with their peers. That said, entity theory, which designates belief in fixed traits, correlates with a greater desire for revenge when youth recalled recent conflicts with their peers.

Also, the results indicated that the modeling of attitudes in accordance with incremental beliefs is a predictor that can contribute to reducing the desire for revenge after an incident of aggression/conflict. Therefore, when adolescents learn that people can change, they are less likely to believe that bullies are bad people, feel less shame after being bullied, develop less negative feelings toward the bully, and show less desire to of revenge (Yeager et al., 2011). The results obtained are in agreement with other previous research suggesting that fixed beliefs about the traits of aggressive peers may play a special role in the willingness to retaliate aggressively (e.g. Yeager et al., 2013).

In his study, Rudolph (2010) started from the premise that there are differences between children regarding the perception of social competence and the quality of relationships with others according to fixed or dynamic perceptions of behavioral characteristics. Drawing on Dweck's (1988, 1999) social-cognitive theory of motivation and personality, Rudolph's (2010) research focused on examining how these different perspectives on relationships with others are reflected in children's social goals and self-evaluations in relationships, with the other colleagues.
The results indicated that the relationship between the level of psychological distress and adjustment difficulties was more intense in children who endorsed entity theories, and moderate in those who endorsed incremental theories. These differences result from the subjective interpretation of social challenges and rigidity regarding judgments of the aggressor. Thus, there is a possibility that followers of the entity theory attribute features with negative connotations to peers and, at the same time, perceive relationships with others as social failures. Such a fixed interpretation can cause substantial emotional distress that can lead to revulsion and antipathy towards colleagues. In other words, the cycle of aggression will continue.

On the other hand, the incremental view minimizes the victim's discomfort, as he tends to explain the negative behaviors of colleagues through the lens of their motives and dynamics. Also, children with incremental theories will focus on remedying the situation by trying to optimize their social skills and identify reconciliation strategies. In this way, students are protected from the negative emotions associated with victimization. These results are complemented by those obtained by Ng & Tong (2013). The authors analyzed the impact of implicit theories on the willingness to forgive the aggressor.

More specifically, the study analyzed the extent to which implicit theories predict forgiveness and judgments of blame for the person who created the discomfort, in terms of internal or external causation. According to the results, youth who hold an incremental theory are more willing to consider both the antecedents of an undesirable behavior and the extent to which the perpetrator was responsible to see whether they deserve forgiveness. They have a greater tendency to detach from the context and thus avoid feelings of victimization, compared to entity theorists who offer forgiveness more tortuously, attributing all the blame to the abuser based on emotional revulsion.

Researchers' interest has also extended to analyzing the relationship between implicit beliefs and ostracism. In the study conducted by Li et al. (2019), in which 383 adolescents participated, a negative correlation was observed between self-esteem and social exclusion in the case of youth with entity theories, while in youth with incremental theories these associations are insignificant. The findings confirm that supporters of the entity theory, who have low self-esteem, are more vulnerable and exhibit aggressive attitudes and behaviors more often. People who have low self-esteem tend to react with hostility and revenge because they externalize failure onto other people. The incremental perspective in the case of those with low self-esteem who blame others causes them to perceive them as capable of remediation and to be more reserved in their evaluation.
Recommendations for the educational practice

Given that aggression has a fairly high frequency in schools, the implicit theories model could be an effective intervention direction for students who experience different instances of relational, physical, and verbal aggression. Leveraging incremental theory in prevention or counseling programs in schools can strengthen students' belief that positive change is possible. Also, these theories can be focused in the direction of optimizing motivation, improving civic skills by developing positive social attitudes, interpersonal communication skills and cooperation.

Moreover, the promotion of the incremental mentality can be reflected in the identification of strategies for managing stress, preventing or reducing suffering, as well as for developing the skills necessary to adapt to conflict situations. By avoiding attitudes based on prejudice and stopping the labeling of students with undesirable attributes, the premises are created for an inclusive school environment that condemns discrimination based on stereotypes and that promotes diversity and encourages the adoption of an assertive position in conflict situations. The results of the analyzed studies show that by integrating the incremental theory in school practice, students are more receptive to change and show a positive attitude to the challenges of their colleagues, experience success in social, personal and academic terms. Both the aggressors and the victims who are "tributaries" to the belief that the traits of peers are fixed and cannot change, through psycho-educational interventions based on the incremental theory, can change their mentality. Implicit theories on personality should represent an important landmark for the educational factors responsible for the curriculum, from whose attention the introduction of some contents related to the modeling of behavioral characteristics should not escape.

Developing a growth mindset in students by instilling a belief in change and optimization will also reflect in students' academic performance. In this way, it is important to form a school culture promoting a positive attitude towards learning and towards the diversity of social contexts. The initial and continuous training of teaching staff in the spirit of implicit theories will contribute to the configuration of a professional profile centered on malleability, optimization and improvement. At the same time, teachers can make use of these theories to instill in students a growth mindset. We believe that the activity of the school counselor can increase its effectiveness by including the incremental perspective in the design of psycho-educational interventions for students, teachers and parents.
Conclusions and future research directions

Through this paper, we aimed to analyze the evidence from the literature that supports the applicability of the model of implicit personality theories in the field of social cognition, focusing on the way of interpreting aggressive behavior in students from the perspective of incremental and entity visions. The studies we have focused on, although few in number, contribute to expanding our understanding of the role that implicit beliefs can play in social interactions. The main findings capture the incremental and entity view as determinants regarding the different ways of making social judgments, attributing the causality of a behavior and adaptive and maladaptive patterns of reporting to conflict situations. Following the review of the main works from the specialized literature, at the end of the paper I identified a series of educational implications of the analyzed model, which converge towards the promotion of the incremental mentality in order to optimize social relations and civic skills of students.

The socio-cognitive model of implicit theories of personality appears promising in terms of potential research directions. It would be interesting to study the two thinking patterns related to subjects in the area of social representations, relying on field-specific methods. Also, the analysis of the process of taking over the theories involved in accordance with the values of the child's immediate environment and the adoption of related behaviors, can represent another research topic.

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