

Theoretical and Review Articles // Artículos teóricos y de revisión

Lilia Montalvo Ocampo 7-23 Acomodación familiar: una revisión sistemática
Blanca Estela Barcelata Eguiarte [Family Accommodation: A systematic review.]
Rebeca Robles García

Research Articles // Artículos de investigación

Renata Cristina Gomes 27-35 The Effect of Establishing Symbolic Coordination
Marlon Alexandre de Oliveira Relations on the Emission of Helping Responses
Julio C. de Rose

Forough Jafari 37-51 Enhancing the Sense of Coherence and Social
Seyedehdorsa Siadati Acceptance in Married Female Students with
Fredrike Bannink Education-Family Conflict: A Positive-Cognitive
Behavioral Group Therapy Approach.

Dulce María Monroy Robles 53-76 Terapia Cognitivo Conductual presencial y remota
Andrea Guerra Anlén para adultos con pánico en Servicios de Emergencias:
Karla Paola Colin Mendiola tres estudios de caso. [Face-to-face and remote
Edgar Landa Ramírez Cognitive Behavioral Therapy for adults with panic
in Emergency Services: Study of three cases.]

Ângela Leite 77-97 Portuguese Version of the Watching TV Series Motives
Beatriz Belezavaz Questionnaire: What Does this Have to Do with
Loneliness? A Bidirectional Relationship.

Flavia Arrigoni 99-107 Transdiagnostic Unified Protocol for Women
José I. Navarro Guzmán with Breast Cancer: A Preliminary Study.

Jennifer Kramer 109-120 The Relationship Between Cognitive and Behavioral
Sara Pieters Measures of Executive Function in the Context of
Tara Smits Elementary School.
Renée L. Roelofs
Jos I. M. Egger

Elenice S. Hanna 121-137 Computer-Assisted or Instructor-Led Reading
Raquel Maria de Melo Instructions of Portuguese Words with
Alessandra Rocha de Albuquerque Orthography Difficulties.
Júlio C. de Rose
Deisy das Graças de Souza

Notes and Editorial Information // Avisos e información editorial

Editorial Office 141-142 Normas de publicación-Instructions to Authors.
Editorial Office 143 Cobertura e indexación de IJP&PT. [IJP&PT
Abstracting and Indexing.]

ISSN 1577-7057

© 2024 Asociación de Análisis del Comportamiento, Madrid, España
Printed in Spain

IJP&PT

INTERNATIONAL JOURNAL OF PSYCHOLOGY & PSYCHOLOGICAL THERAPY

EDITOR

Francisco Javier Molina Cobos
Universidad de Almería, España

REVIEWING EDITORS

Mónica Hernández López
Universidad de Jaén
España

Francisco Ruiz Jiménez
Fundación Universitaria Konrad Lorenz
Colombia

ASSOCIATE EDITORS

Dermot Barnes-Holmes
Ulster University
UK

J. Francisco Morales
UNED-Madrid
España

Mauricio Papini
Christian Texas University
USA

Miguel Ángel Vallejo Pareja
UNED-Madrid
España

Kelly Wilson
University of Mississippi
USA

ASSISTANT EDITORS

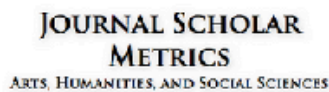
Francisco Cabello Luque
Adolfo J. Cangas Díaz

Universidad de Murcia, España
Universidad de Almería, España

THE STATEMENTS, OPINIONS, AND RESULTS OF STUDIES PUBLISHED IN IJP&PT ARE THOSE OF THE AUTHORS AND DO NOT REFLECT THE POLICY OR POSITION OF THE EDITOR, THE EDITORIAL TEAM, THE IJP&PT EDITORIAL BOARD, OR THE AAC; AS TO ITS ACCURACY OR RELIABILITY, NO OTHER GUARANTEE CAN BE OFFERED THAN THAT PROVIDED BY THE AUTHORS THEMSELVES.

LAS DECLARACIONES, OPINIONES Y RESULTADOS DE LOS ESTUDIOS PUBLICADOS EN IJP&PT PERTENECEN EN EXCLUSIVA A LOS AUTORES, Y NO REFLEJAN LA POLÍTICA O POSICIÓN DEL EDITOR, DEL EQUIPO EDITORIAL, NI DEL CONSEJO EDITORIAL DE IJP&PT, NI DE LA AAC; EN CUANTO A SU EXACTITUD O FIABILIDAD, NO PUEDE OFRECERSE NINGUNA OTRA GARANTÍA QUE NO SEA LA APORTADA POR LOS PROPIOS AUTORES.

IJP&PT IS INCLUDED IN THE FOLLOWING INDEXING AND DOCUMENTATION CENTERS:



University Grants Commission
Bahadur Shah Zafar Marg, New Delhi-110002
Website: www.ugc.ac.in



The Effect of Establishing Symbolic Coordination Relations on the Emission of Helping Responses

Renata Cristina Gomes, Marlon Alexandre de Oliveira, Julio C. de Rose

Universidade Federal de São Carlos, Brasil

ABSTRACT

This study aimed to investigate how the presentation of a request for help influences the likelihood of people being willing to help. The study was conducted with two groups of participants, one experimental and one control, who were asked to report their recent problems and then were presented with a request for help. The experimental group was presented with additional statements that established a relationship of coordination between the current problem and the participants' own problems that they had just reported. The control group was only presented with a simple request for help. The results showed that the experimental group was more likely to respond to the request for help, with seven out of eight participants contacting the second experimenter and five of them actively participating in the research. In contrast, in the control group, only half of the participants made contact and three of them agreed to participate. The authors hypothesized that by comparing both situations when requesting help, the experimenter facilitated the establishment of symbolic relations of coordination between such situations, which apparently increased the probability that the request for help would evoke responses. The results suggest that the use of this strategy -comparing the experiences lived by the client with those experienced by others- can be expanded in psychotherapy and other contexts aimed at developing empathy and sensitivity towards others. However, the results need to be considered with caution due to methodological limitations.

Key words: help behavior, symbolic relations, coordination.

How to cite this paper: Gomes RC, de Oliveira MA, & de Rose JC (2024). The Effect of Establishing Symbolic Coordination Relations on the Emission of Helping Responses. *International Journal of Psychology & Psychological Therapy*, 24, 1, 27-35.

Novelty and Relevance

What is already known about the topic?

- Research studies have showed a relationship between personal experiences of suffering and increased empathy towards others who share similar experiences.
- These findings provide empirical support for the hypothesis that people would be more willing to help others if there was a coordination relation between the description of their suffering and the suffering of others.

What this paper adds?

- The study's findings could inform interventions and strategies aimed at fostering empathy in various contexts, such as healthcare, counseling, and social activism.
- By shedding light on the role of relational frames in empathy, this research can contribute to the development of effective interventions that promote prosocial behavior and compassion.

In line with the concern for strengthening more cooperative cultural practices (Skinner, 1953; Nowak, 2006, 2011; Tomasello, 2009; Ekman, 2010; Wilson, 2015), the search for procedures for developing empathetic repertoires, or sensitivity to others, has been the focus of behavior analysts and behavioral psychotherapists (McHugh, Barnes-Holmes, & Barnes-Holmes, 2004; McHugh, Barnes-Holmes, O'Hora, & Barnes-Holmes, 2004; Valdivia, Luciano, Gutiérrez, & Visdómine, 2009; Vilardeaga, 2009; Vilardeaga, Estévez, Levin, & Hayes, 2012). In this line, behavioral psychotherapeutic interventions, especially with adult clients, are essentially verbal (Dougher, 2021; Guedes, 1993; Zamignani & Meyer, 2007). A common strategy for evoking empathetic or helping behaviors is to describe possible emotional states of other people (Vilardeaga, 2009). For

* Correspondence: Renata Cristina Gomes, Institution: UFSCar - Universidade Federal de São Carlos, Brazil. Email: renatacogomes@gmail.com

example, if there is evidence that Maria, someone close to the client, is in distress, the psychotherapist could say something like “Maria seems to be suffering.” Additionally, it is possible to add a verbal instruction for the client to behave in a way that helps Maria: “you could do something about it”. This situation may establish contextual means to evoke empathetic behavior through verbally oriented strategies.

From the perspective of Relational Frame Theory (RFT), it is possible to assert that the psychotherapist seeks to include new verbal stimuli in frames in which coordination relations between their members have already been established. In our last example, there is already a symbolic relationship of coordination between the words “suffering” and “distress” and the image of a furrowed brow, and the psychotherapist could try to relate such stimuli to the word “Maria” and to other words that would describe the context of suffering in which Maria is inserted.

Such a strategy has been shown to be effective in that the verbal stimuli related to Maria highlighted in the therapeutic session acquire the symbolic function of “suffering” and that the client is able to describe that Maria suffers and would benefit from some type of help. However, this type of intervention does not always produce emotional responses from the client: they may become able to describe Maria’s suffering, but does not necessarily feel any discomfort about it. In addition, even in the face of a specific instruction, helping responses do not always occur outside of the session: the client is equally capable of saying what they could do to help, although there is no correspondence between saying and doing. The literature warns of the possibility that such correspondence may not occur (Perez, 2017; Wechsler & Amaral, 2009), and it is important to investigate variables that potentiate changes beyond speech.

Rule control is a type of verbally governed behavior (Harte, Barnes-Holmes, Barnes-Holmes, & Kissi, 2020) selected for its consequences and classified (pliance, tracking, or augmenting) based on the type of relational frame involved in the contextual control of these rules. Rule-governed behavior is classified as pliance when it occurs under the control of a history of socially mediated reinforcement for coordinating saying and doing. For example, if the therapist says, “You should help Maria who is in distress,” and the client helps due to social reinforcement from the therapist, this would be an example of pliance. In the case of tracking, rule control occurs due to a history of coordination between the rule and the environmental events it describes. It would be an example of tracking if, in response to the same rule presented by the therapist, the client helps Maria because the verbal antecedent makes them attend to Maria’s suffering, and reducing Maria’s suffering has reinforcing value in itself.

Among several variables that diminish the control exerted by rules, Valdivia *et alii* (2009) indicate that rules may not be followed because the individual has not yet learned to respond to the symbolic reinforcement contingencies involved in the “greater good”:

It might also be the case that Emma fails to respond appropriately to Tom because she has not learned to care. In other words, she has not yet learned to engage in actions simply for the “greater good” (in other words, those controlled by long-term or symbolic contingencies). For RFT, this involves a transition in rule governance from pliance (when Emma offers help only because of a history of being told to do so, in order to get approval from others or avoid punishment) to tracking based on short-term and direct contingencies (when Emma offers help because of a history of being subsequently rewarded for the direct consequences of the actions). (Valdivia *et alii*, 2009, p.309)

The premise is that by responding to the symbolic function of stimuli, individuals would respond to reinforcement contingencies that operate on others and the group.

This transition from pliance (responding based on how the verbal community directly consequences rule-following) to tracking (symbolically responding based on nonverbal contingencies operating) would be a promising strategy for psychotherapy clients to not just help others because the therapist instructed them to, or, even less desirable, limit themselves to describing the other's suffering, but instead emit behavior genuinely sensitive to the other. It would be a strategy in which the other's suffering and happiness would acquire aversive or positively reinforcing symbolic function for the behaving individual, through derived relational responding.

In the context of empathy and sensitivity to others' suffering, RFT suggests that people may be more sensitive to others' suffering when they have a relational frame that connects their own suffering to that of others. Several pieces of evidence support this hypothesis. For instance, Bebbler, Luciano, Sánchez, & Cabello (2021) explore how sharing a common relational repertoire is relevant for a range of behaviors, such as humor involved in joking. Goubert, Crombez, Van Damme, & Vlaeyen (2005) research, for example, showed that when people are reminded of their own painful experiences, they are more likely to feel empathy for others experiencing similar pain: participants who were asked to recall a painful experience before watching a video of someone in pain rated the other person's pain as more intense and unpleasant than those who did not recall a painful experience.

Studies have also found that people are more likely to help others who are experiencing pain when they perceive a similarity between their own experiences and those of the person in need of help. For example, in one study, participants were more likely to donate money to a charity supporting people with the same medical condition they had experienced (Small, Loewenstein, & Slovic, 2007). Ekman (2010, p.557) recalled that Darwin stated that when pain or discomfort is involuntarily witnessed, some discomfort is felt by the witness and the reduction/removal of this own discomfort would select behaviors that help the other. However, he pointed out that not all individuals showed such empathic responses. The hypothesis investigated by the present study is that this gap can be filled by understanding how the relational framing between what happens to the individual and what happens to others can elicit such emotional responses.

When the psychotherapist points out similarities between the client's pain and the other's pain, the aim is to present contextual cues that evoke relational responses from the client that would include events from the situation experienced by the client (relational network A) and by the other (relational network B) in a coordinated relationship. It would, therefore, involve helping the client coordinate these two trained or derived relational networks, the same type of coordination that occurs when people make analogies (Gomes, Perez, Barnes-Holmes, & Harte, 2023; Stewart, Barnes-Holmes, Hayes, & Lipkens, 2001; and Stewart, Barnes-Holmes, Roche, & Smeets, 2002).

By relating their own suffering to that of another, the transfer of functions between stimuli, widely documented in the literature (e.g., Dougher, Augustson, Markham, Greenway, & Wulfert, 1994; Mizael, de Almeida, Silveira, & de Rose, 2016; Perez, Nico, Kovac, Adriana, & Leonardi, 2013; de Rose, 2016; Perez, de Almeida, Soares, Wang, Morais, Mascarenhas, & de Rose, 2020), would act in such a way that the pain of the other would acquire aversive symbolic function for the client. In this condition, the emission of a helping response towards the other would have its probability increased by the natural and immediate reinforcing consequences of helping: the reduction of one's own discomfort (Valdivia-Salas *et alii*, 2009). The therapist can actively facilitate this transfer of functions by verbally intervening and evoking such coordination relationships on the part of the client.

To measure experimentally the effect of verbal interventions such as those typically employed in psychotherapy is not straightforward. Classic experiments in social psychology employed simulated situations to observe and record helping behaviors closer to those that would occur in natural situations. In a study by Darley and Latané (1968), for example, experimenters made participants believe they were listening through an intercom to a second participant having an epileptic seizure. In another very interesting study (Darley and Batson, 1973), participants were seminarians who moved to a building where they would give a lecture on the Parable of the Good Samaritan. On the way, they passed by a confederate who was simulating a medical emergency. In these two studies, the helping behavior was clearly specified and could be measured to determine effects of the independent variables. In the present study, we employed a similar strategy to recreate interactions typical of the psychotherapeutic context, fostering the development or expansion of sensitivity towards others. Participants underwent an interview with the experimenter to discuss “motivation,” during which they were invited to assist a second researcher struggling to find participants for their own study. The dependent variables measured were the number of participants who contacted the second researcher and the number of participants who agreed to help them by participating in their research.

METHOD

Participants

Participants were recruited through the dissemination of the research in groups of students from an online course on realistic drawings. The choice of students from this course was due to: 1) the broad and diverse audience from participants in the course, which would favor reaching people of different ages, educational levels, and geographical regions; 2) the fact that students in the course would already have access to the internet and some familiarity with the use of distance learning tools, similar to those intended to be used in the procedure.

In total, 16 adults (8 women) participated in the experiment. The characteristics of the participants regarding gender, age, and education, according to the groups in which they were allocated, can be seen in Table 1. The message that was disseminated invited interested individuals to participate in an online experiment about human behavior, involving an initial interview about motivation and a feedback session.

Table 1. Participants, Sex, Age and Education level for Experimental and Control groups.

Group	Participants	Sex	Age	Education
Experimental <i>M age= 37</i>	E1	F	37	Undergraduated
	E2	F	52	Undergraduated
	E3	F	68	Undergraduated
	E4	F	29	Postgraduated
	E5	M	44	High School
	E6	M	18	Elementary
	E7	M	33	Undergraduated
	E8	M	21	Undergraduated
Control <i>M age= 30</i>	C1	F	45	Elementary
	C2	F	28	Postgraduated
	C3	F	27	High School
	C4	F	29	High School
	C5	M	22	Undergraduated
	C6	M	46	Undergraduated
	C7	M	22	High School
	C8	M	25	High School

Material and Setting

For the interview and feedback session, both the experimenter and participants had an electronic device with internet access, microphone, and camera. The interviews and feedback sessions were recorded and conducted through the Zoom application. Both the experimenter and participant were in a private location without interruptions.

Procedure

Once the interested person agreed, the interview was scheduled. From that point on, participants were randomly assigned to the experimental or control group, with the only criterion being to keep the number and gender of participants balanced between the groups. Thus, the first interested man was assigned to the experimental group, while the second was included in the control group, and so on. The same alternating procedure between experimental and control groups was used with female participants.

Questions 3, 4, and 7 of the initial interview could evoke reports from participants about situations in which they felt uncomfortable in some way. These reports were later used to compose the request for help that was presented to the experimental group. The experimental variable was not explicitly revealed to participants initially because if it did, this information could potentially interfere with the probability of emitting help responses, as they would know that this would be the target behavior. The “covert research,” as termed in Resolution 510/2016 of the National Committee of Research Ethics (CONEP), is justified in such circumstances, and the present study was submitted and approved by the responsible Committee of Research Ethics (CEP). The feedback interview, guaranteed to all participants in both the experimental and control groups, aimed, among other things, to provide clarifications about the manipulated variable and target behavior.

Interview Guide

As you already know, this is a research about motivation. Today we will talk about this topic and, since people have unique experiences and perceptions, don't worry, there are no right or wrong answers. Take your time and try to bring as many personal examples as you can. When you consider that you have concluded your answer, you can request the next question. There are a total of 7 questions. Can we start?

1. Do you consider yourself a motivated person?
2. Do you apply any strategies to stay motivated?
3. Can you describe a situation in which you noticed that you were particularly demotivated? How did you feel?
4. Can you describe a situation in which someone intentionally helped you to motivate yourself? How did you feel?
5. How do you see the role of personal discipline in motivation?
6. How do you see the influence of other people on your motivation?
7. Have you ever been in a situation where you realized that you couldn't achieve a goal without help? How did you feel?

At the end of the interview, the interviewer thanked the participant for their collaboration and scheduled the feedback session, taking into account the participant's availability, within approximately seven days. The idea of scheduling the feedback

within this timeframe is to approximate the frequency of sessions in psychotherapeutic relationships, where clients and therapists typically meet once a week. The feedback session was conducted by the same person who conducted the initial interview.

At this point in the interaction, after the initial interview and the scheduling of the feedback session, the procedure diverged for the experimental and control groups. For the control group, before bidding farewell, the experimenter added:

“Our activity here today is concluded, but since we are talking about motivation and the influence that others can have on it, I would like to invite you to help a colleague from my lab, a second researcher, who also needs assistance with his data collection. He is conducting research on learning, created an online game about it, and is having difficulty finding participants. It’s been tough for him, and he’s starting to feel discouraged after all the work he put into it. Can I send you an invitation to participate in his research? You can evaluate it and decide if you’d like to participate.”

For the experimental group, the final statement was essentially the same, except for including verbal cues based on what the participant had just reported and making an explicit attempt to align what was said about the participant with what was being said about the person in need of help:

“Our activity here today is concluded, but since we are talking about motivation and the influence that others can have on it, I would like to invite you to help a colleague from my lab, a second researcher, who also needs assistance with his data collection. You know what you just told me about how difficult it was for you when [introduce example reported by the participant during the interview]. He is conducting research on learning, created an online game about it, and is having difficulty finding participants. It’s been tough for him, and he’s starting to feel discouraged after all the work he put into it, similar to what you mentioned you felt. Can I send you an invitation to participate in his research? You can evaluate it and see if you’d like to participate.”

If the participant agreed, the invitation for this second study was sent to them via WhatsApp as soon as possible. The second study that the participant was invited to contribute to was conducted by another member of the laboratory. The procedure had also been approved by the research ethics committee and data collection also occurred online, requiring the same internet access resources.

At the time of feedback, the experimenter clarified to the participant about the independent variable (favoring or not the coordination relationship between the personal report and the request for help on the probability of help responses), explained the importance of the initial omission of the experimental variable, checked what hypotheses the participant had about the experiment, and if in any way they were bothered by the initial omission of that information. The participant was told that they could withdraw their consent if they so preferred.

RESULTS

To evaluate the emission of help responses two different behaviors that participants could take in response to the invitation to help the other researcher through participation in their study were considered: (1) Contact, meaning contacting the other researcher to learn more about the project, and (2) Help, meaning participating in the research. Table 2 summarizes the results obtained. The occurrence of the target behaviors was marked

Table 2. Participants, Sex, Contact and Help for Experimental and Control groups.

Group	Participants	Sex	Contact	Help
Experimental	E1	F	1 ^a	1
	E2	F	1	0 ^b
	E3	F	1	0
	E4	F	1	1
	E5	M	1	1
	E6	M	1	1
	E7	M	1	1
	E8	M	0	0
<i>M</i>			87.5%	62.5%
Control	C1	F	0	0
	C2	F	1	1
	C3	F	1	1
	C4	F	1	1
	C5	M	0	0
	C6	M	1	0
	C7	M	0	0
	C8	M	0	0
<i>M</i>			50%	37.5%

Notes: 1^a= Behavior occurrence; 0^b= Non-behavior occurrence.

with 1 and the non-occurrence with 0.

As can be observed, in the experimental group, seven out of eight participants contacted the second experimenter and, of those, five actively participated in the new research. Participant E3, a 68-year-old woman, explained both in her contact with the second experimenter and during the feedback session of the original research that she would not participate in the additional project due to it being an online game. She mentioned that she was not skilled in that type of activity and believed that her participation would not be very helpful. In a way, one could interpret that she exhibited the helping behavior she deemed appropriate.

In the control group, half of the participants made contact to learn more about the second research. Among these 4 participants, 3 agreed and actively participated in the proposed study.

DISCUSSION

The data suggest that the way the request was presented may have influenced the likelihood of people being willing to help. For the control group, in which the experimenter only described the problem, how the second researcher was feeling, and requested help, the target behaviors occurred less frequently compared to the experimental group, in which additional statements were made that potentially established a relationship of coordination between the current problem experienced by the second researcher and the participants' own problems that they had just reported in the interview.

The hypothesis is that by comparing both situations (the one reported by the participant and the one supposedly being experienced by the second researcher) when requesting help, the experimenter facilitated the establishment of symbolic relations of coordination between such situations. When presenting the request for assistance, the experimenter compared the situations stating, "similar to what you mentioned you felt." Presumably, this statement should serve as a contextual stimulus (Crel) that controls the particular type of relational response (sameness) within a relational frame of coordination.

Perez, Fidalgo, Kovacs, and Nico (2015) suggested that when establishing such a coordination between the two contexts, it's possible that some of the stimulus functions

(Cfunc) from one context to transfer to the other. Thus, part of the discomfort experienced by the experimental group participants themselves, while relating their problem, would have been, through function transfer, generalized to the description of the present problem situation. The relationship of coordination and function transfer apparently increased the probability that the request for help would evoke such responses. The request presented in this way may have functioned as a discriminative stimulus to respond to the contingency in operation (tracking) and not only to the simple verbal request combined with the potential consequence applied by the experimenter for complying with it (pliance).

If this hypothesis is confirmed, the use of this relatively simple strategy -comparing the experiences lived by the client with those experienced by others- can be expanded in psychotherapy and other contexts aimed at developing empathy and sensitivity towards others, yielding beneficial results for the individual and the community. However, although encouraging, the results also need to be considered with caution due to methodological limitations. No measure of participants' predisposition to help was taken, and we thus cannot rule out the possibility that more collaborative individuals were, by chance, allocated to the experimental group. Although such predisposition can be investigated through measures of altruism or rule-following, this strategy was avoided as the content of such instruments could inadvertently give hints to the participants regarding the investigated variable.

A larger number of participants may also yield more robust results, and it appears important to continue and expand data collection. Furthermore, despite the difficulty in proposing a procedure that emulates what occurs in the psychotherapeutic context and allows for experimental control over a genuine helping response, the present arrangement proved to be a viable approach for evaluating the target behavior.

REFERENCES

- Bebber M, Luciano C, Sánchez JR, & Cabello F (2021). Is this a Joke? Altering the Derivation of Humor Behavior. *International Journal of Psychology and Psychological Therapy*, *21*, 413-431.
- Darley JM & Batson CD (1973). "From Jerusalem to Jericho": A study of situational and dispositional variables in helping behavior. *Journal of Personality and Social Psychology*, *27*, 100-108.
- Darley JM & Latané B (1968). Bystander intervention in emergencies: Diffusion of responsibility. *Journal of Personality and Social Psychology*, *8*, 377-383.
- de Rose JC (2016). A importância dos respondentes e das relações simbólicas para uma análise comportamental da cultura. *Acta Comportamentalia*, *24*, 201-220.
- Dougher MJ (2021). Murray Sidman's contributions to clinical behavior analysis. *Journal of the Experimental Analysis of Behavior*, *115*, 36-43. Doi: 10.1002/jeab.644
- Dougher MJ, Augustson E, Markham MR, Greenway DE, & Wulfert E (1994). The transfer of respondent eliciting and extinction functions through stimulus equivalence classes. *Journal of the Experimental Analysis of Behavior*, *62*, 331-351. Doi: 10.1901/jeab.1994
- Gomes CT, Perez WF, Barnes-Holmes D, & Harte C (2023). Relating relational networks: An initial experimental analysis. *Journal of the Experimental Analysis of Behavior*. Advance online publication. Doi: 10.1002/jeab.854
- Goubert L, Crombez G, Van Damme S, & Vlaeyen JW (2005). Implicit learning of pain-related associations in chronic pain patients and healthy controls. *Pain*, *115*, 324-331. Doi: 10.1016/j.pain.2005.03.007
- Harte C, Barnes-Holmes D, Barnes-Holmes Y, & Kissi A (2020). The study of rule-governed behavior and derived stimulus relations: Bridging the gap. *Perspectives on Behavior Science*, *43*, 361-385. Doi: 10.1007/s40614-020-00256-w
- McHugh L, Barnes-Holmes Y, & Barnes-Holmes D (2004). Perspective-taking as relational responding: A developmental profile. *The Psychological Record*, *54*, 115-144. Doi: 10.1007/BF03395465
- McHugh L, Barnes-Holmes Y, O'Hara D, & Barnes-Holmes D (2004). Perspective-taking: A relational frame analysis.

- Experimental Analysis of Human Behaviour Bulletin*, 22, 4-10.
- Mizael TM, de Almeida JH, Silveira CC, & de Rose JC (2016). Changing racial bias by transfer of functions in equivalence classes. *The Psychological Record*, 66(3), 451-462. Doi: 10.1007/s40732-016-0185-0
- Nowak MA (2006). Five rules for the evolution of cooperation. *Science*, 312 (5776), 1560-1563.
- Nowak MA (2011). *Super cooperators: Altruism, evolution, and why we need each other to succeed*. New York: Free Press.
- Perez WF (2017). Explicações comportamentais da correspondência dizer-fazer. *Revista Brasileira de Análise do Comportamento*, 13, 16-28. Doi: 10.18542/rebac.v13i1.5260
- Perez WF, Fidalgo AP, Kovac RF, & Nico YC (2015). The transfer of Cfunc contextual control through equivalence relations. *Journal of the Experimental Analysis of Behavior*, 103, 511-523. Doi: 10.1002/jeab.150
- Perez WF, Nico YC, Kovac RF, Fidalgo AP, & Leonardi JLL (2013). Introdução à Teoria das Molduras Relacionais (Relational Frame Theory): principais conceitos, achados experimentais e possibilidades de aplicação. *Perspectivas em Análise do Comportamento*, 4, 32-50.
- Perez WF, de Almeida JH, Soares LC, Wang T, Morais TD, Mascarenhas A & de Rose JCC (2020). Fearful Faces and the Derived Transfer of Aversive Functions. *The Psychological Record*, 70, 1-10. Doi: 10.1007/s40732-020-00390-6
- Skinner BF (1953). *Science and Human Behavior*. New York: McMillan.
- Small DA, Loewenstein G, & Slovic P (2007). Sympathy and callousness: The impact of deliberative thought on donations to identifiable and statistical victims. *Organizational Behavior and Human Decision Processes*, 102, 143-153. Doi: 10.1016/j.obhdp.2006.09.005
- Stewart I, Barnes-Holmes D, Hayes SC, & Lipkens R (2001). Relations Among Relations: Analogies, Metaphors, And Stories. In SC Hayes, D Barnes-Holmes, & B Roche (Eds.), *Relational Frame Theory: A Post-Skinnerian account of human language and cognition* (pp. 73-86). New York: Plenum Press.
- Stewart I, Barnes-Holmes D, Roche B, & Smeets PM (2002). A functional-analytic model of analogy: A relational frame analysis. *Journal of the Experimental Analysis of Behavior*, 78, 375-396. Doi: 10.1901/jeab.2002.78-375
- Tomasello M (2009). *Why we cooperate*. Boston, MA: Boston Review.
- Valdivia-Salas S, Luciano C, Gutiérrez O, & Visdómine C (2009). Establishing empathy. In R. Rehfeldt & Y. Barnes-Holmes (Eds.), *Derived relational responding applications for learners with autism and other developmental disabilities: A progressive guide to change* (pp. 301-312). Oakland, CA: New Harbinger.
- Vilardaga R (2009). A relational frame theory account of empathy. *International Journal of Behavioral Consultation and Therapy*, 5, 178-184. Doi: 10.1037/h0100879
- Vilardaga R, Estévez A, Levin M, & Hayes S (2012). Deictic Relational Responding, Empathy, and Experiential Avoidance as Predictors of Social Anhedonia: Further Contributions From Relational Frame Theory. *The Psychological Record*, 62, 409-432. Doi: 10.1007/BF03395811
- Wechsler A & Amaral VL (2009). Correspondência verbal: uma revisão da literatura. *Revista Brasileira de Terapia Comportamental e Cognitiva*, 11, 189-208. Doi: 10.31505/rbtcc.v11i2.398
- Wilson DS (2015). *Does altruism exist? Culture, genes and the welfare of others*. New Haven: Yale University Press.
- Zamignani D & Meyer S (2007). Comportamento verbal no contexto clínico: contribuições metodológicas a partir da análise do comportamento. *Revista Brasileira de Terapia Comportamental e Cognitiva*, 9, 241-259. Doi: 10.31505/rbtcc.v9i2.19

Received, August 5, 2023
Final Acceptance, January 28, 2024