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## “The GRR Method”: Companion Animals as Partners in Human Stress Management Through Grounding, Relating, and Reframing Skills

«Метод GRR»: животное-компаньон как партнер в преодолении стресса с помощью навыков заземления, установления отношений и рефрейминга

### Абстракт

С наступлением пандемии COVID-19 возросла потребность в навыках для поддержания психического здоровья, преодоления стресса и перенесения трудностей<sup>1</sup>. Биопсихосоциальные преимущества взаимодействия человека с животными были признаны важными для защиты психического здоровья и противодействия стрессу во время пандемии<sup>2</sup>. Благодаря включению значимых взаимодействий с животными-компаньонами в использование трех широко признанных, основанных на фактических данных навыков преодоления

“The GRR Method”: Companion Animals as Partners in Human Stress Management Through Grounding, Relating, and Reframing Skills

### Abstract

With the advent of the COVID pandemic and associated stressors, there is an increased need for strategies to support mental health, stress management, and coping skills.<sup>1</sup> The biopsychosocial benefits of human-animal interaction have been identified as a protective factor for mental health and stress during the pandemic.<sup>2</sup> Through incorporating intentional interactions with companion animals in the use of three widely recognized evidence-based coping skills—grounding, relating, and reframing—the GRR Method is delineated as a coping strategy. The GRR Method

<sup>1</sup> Alison Doherty, Valerio Benedetto, Catherine Harris, Paul Boland, Danielle L. Christian, James Hill, Gita Bhutani, and Andrew J. Clegg, “The Effectiveness of Psychological Support Interventions for Those Exposed to Mass Infectious Disease Outbreaks: A Systematic Review,” *BMC Psychiatry* 21, no. 1 (2021), <https://search.ebscohost.com/login.aspx?direct=true&AuthType=shib&db=eoh&AN=58340552&site=eohost-live>.

<sup>2</sup> Xing Xin, Ling Cheng, Shufang Li, Ling Feng, Yinjuan Xin, and Shaoshuai Wang, “Improvement to the Subjective Well-being of Pet Ownership May Have Positive Psychological Influence during COVID-19 Epidemic,” *Animal Science Journal* 92, no. 1 (2021), <https://doi.org/10.1111/asj.13624>.

трудностей – заземления, установления отношений и рефрейминга (grounding, relating, and reframing, GRR) – так называемый метод GRR определяется как важная стратегия выживания. Метод GRR не является научно обоснованной практикой или клинически доказанным вмешательством. Это скорее предложение использовать существующие практические навыки перенесения трудностей, основанные на партнерстве и осознанном взаимодействии с животными-компаньонами. В статье кратко обсуждается реакция на стресс для того, чтобы предоставить контекст для использования навыков заземления, установления отношений и рефрейминга, усиленных взаимодействием с животным-компаньоном. Метод GRR был описан и объяснен как стратегия «Единое здоровье», которая может принести пользу как людям, так и животным. Кроме того, в статье были подняты вопросы оптимального содержания животных и их согласия на контакт.

**Ключевые слова:** животное-компаньон, домашние питомцы, стресс, психическое здоровье, перенесение трудностей

is not an evidenced-based practice or tested intervention, rather, it is a proposed application strategy for *existing evidence-based coping skills* through partnership and purposeful interaction with companion animals. Within this article, the human stress response is briefly reviewed to provide a framework in which to situate use of grounding, relating and reframing skills augmented by companion animal interaction. The GRR Method is presented and explicated as a One Health strategy that can benefit *both* people and animals; issues of animal welfare, consent, and enrichment are explicitly addressed.

**Keywords:** companion animals, pets, stress, mental health, coping

## Introduction

Due to the emerging evidence base for the human biopsychosocial benefits associated with living with non-human companion animals<sup>3</sup> (henceforth referred to as companion animals for brevity), companion animals are increasingly being recognized as potential partners in human health and

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<sup>3</sup> Helen Louise Brooks, Kelly Rushton, Karina Lovell, Penny Bee, Lauren Walker, Laura Grant, and Anne Rogers, “The Power of Support from Companion Animals for People Living with Mental Health Problems: A Systematic Review and Narrative Synthesis of the Evidence,” *BMC Psychiatry* 18, no. 1 (2018): 31, <https://doi.org/10.1186/s12888-018-1613-2>; Eloise Carr C. J., Jill M. Norris, K. Alix Hayden, Rianne Pater, and Jean E. Wallace, “A Scoping Review of the Health and Social Benefits of Dog Ownership for People Who Have Chronic Pain,” *Anthrozoös* 33, no. 2 (2020): 207–224, <https://doi.org/10.1080/08927936.2020.1719761>; Michael J., Hughes, Martie-Louise Verreynne, Paul Harpur, and Nancy A. Pachana. “Companion Animals and Health in Older Populations: A Systematic Review,” *Clinical Gerontologist* 43, no. 4 (2020): 365–377, <https://doi.org/10.1080/07317115.2019.1650863>.

well-being.<sup>4</sup> For instance, walking with a dog companion—a.k.a. “dog walking”—is being explored as an explicit health promotion activity in the United Kingdom. With the advent of the COVID pandemic and associated stressors, mental health concerns such as depression and anxiety have increased world-wide.<sup>5</sup> The biopsychosocial benefits conveyed by animal companionship have been documented as a protective factor against pandemic-related stress and mental health concerns.<sup>6</sup> Increased self-care via use of evidence-based and evidence-based coping and stress management skills has been widely encouraged and endorsed to help protect against pandemic-related mental health issues.<sup>7</sup> Through incorporating intentional interactions with companion animals in the use of three coping skills that are recognized and utilized across existing evidence-based mental health interventions—grounding, relating, and reframing—the GRR Method is proposed as a strategy for applying these skills through mutually beneficial partnership and purposeful interaction with a companion animal. The GRR Method has not been previously proposed

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<sup>4</sup> Komalsingh Rambaree and Stefan Sjöberg, “Companion Animals in Health-Promoting Work-Life.” *Society & Animals* 29, no. 1 (January 2021): 22–40; Carri Westgarth, Robert M. Christley, Gary Marvin, and Elizabeth Perkins, “Functional and Recreational Dog Walking Practices in the UK,” *Health Promotion International* 36, no. 1 (2021): 109–119, <https://doi.org/10.1093/heapro/daaa051>; Janette Young, Rhianna Pritchard, Carmel Nottle, and Helen Banwell, “Pets, Touch, and COVID-19: Health Benefits From Non-Human Touch Through Times of Stress.” *Journal of Behavioral Economics for Policy* 4 (2020): 25–33.

<sup>5</sup> Damian F. Santomauro, Ana M. Mantilla Herrera, Jamileh Shadid, Peng Zheng, Charlie Ashbaugh, David M. Pigott, Cristiana Abbafati, Christopher Adolph, Joanne O. Amlag, Aleksandr Y. Aravkin, Bree L. Bang-Jensen, Gregory J. Bertolacci, Sabina S. Bloom, Rachel Castellano, Emma Castro, Suman Chakrabarti, Jhili Chattopadhyay, Rebecca M. Cogen, James K. Collins, Xiaochen Dai, William James Dangel, Carolyn Dapper, Amanda Deen, Megan Erickson, Samuel B. Ewald, Abraham D. Flaxman, Joseph Jon Frostad, Nancy Fullman, John R. Giles, Ababi Zergaw Giref, Gaorui Guo, Jiawei He, Monika Helak, Erin N. Hulland, Bulat Idrisov, Akiya Lindstrom, Emily Linebarger, Paulo A. Lotufo, Rafael Lozano, Beatrice Magistro, Deborah Carvalho Malta, Johan C. Månsson, Fatima Marinho, Ali H. Mokdad, Lorenzo Monasta, Paulami Naik, Shuhei Nomura, James Kevin O’Halloran, Samuel M. Ostroff, Maja Pasovic, Louise Penberthy, Robert C. Reiner Jr, Grace Reinke, Antonio Luiz P. Ribeiro, Aleksei Sholokhov, Reed J. D. Sorensen, Elena Varavikova, Anh Truc Vo, Rebecca Walcott, Stefanie Watson, Charles Shey Wiysonge, Bethany Zigler, Simon I. Hay, Theo Vos, Christopher J. L. Murray, Harvey A. Whiteford, and Alize J. Ferrari, “Global Prevalence and Burden of Depressive and Anxiety Disorders in 204 Countries and Territories in 2020 Due to the COVID-19 Pandemic,” *The Lancet* 398, no. 10312 (November 2021): 1700–1712, [https://doi.org/10.1016/S0140-6736\(21\)02143-7](https://doi.org/10.1016/S0140-6736(21)02143-7).

<sup>6</sup> Emily Shoesmith, Lion Shahab, Dimitra Kale, Daniel S Mills, Catherine Reeve, Paul Toner, Luciana Santos de Assis, and Elena Ratschen, “The Influence of Human-Animal Interactions on Mental and Physical Health during the First COVID-19 Lockdown Phase in the U.K.: A Qualitative Exploration,” *International Journal of Environmental Research and Public Health* 18, no. 3 (2021), <https://doi.org/10.3390/ijerph18030976>; Xin, Cheng, Li, Feng, Xin, and Wang, “Improvement to the Subjective Well-being.”

<sup>7</sup> Doherty, Benedetto, Harris, Boland, Christian Hill, Bhutani, and Clegg, “The Effectiveness of Psychological Support.”

or researched and does not entail the use of novel interventions/coping skills. Rather, the GRR Method is simply a way to proactively include companion animals in standard applications of existing human coping skills—grounding, relating, and reframing—for the purpose of enhancing *both* human and animal well-being.

## Three Evidence-based Human Stress Management Skills: Grounding, Relating, and Reframing (GRR)

### Grounding

Grounding is a long-standing coping skill used within numerous evidence-based mental health interventions for a wide range of adult and child populations struggling with trauma, mood, anxiety, disassociation, and other mental health symptoms.<sup>8</sup> Physical/sensory grounding refers to deliberate actions that engage one's physical senses—seeing, hearing, smelling, tasting and touching—to help one reconnect to the physical body and the present time<sup>9</sup>; it is considered a crucial coping technique in trauma intervention<sup>10</sup> and is a key skill taught within an evidence-based practice called Dialectical Behavioral Therapy.<sup>11</sup> For the purposes of the GRR Method, physical/sensory grounding will henceforth be referred to as *grounding*.

Najavits<sup>12</sup> describes numerous ways to apply the skill of grounding, such as a person feeling the fabric of their clothing to engage their sense of touch, or alternately, to stroke their companion animal to engage their sense of touch, and note the sensations of the animal's fur, warmth, and so forth. The GRR Method simply focuses on the activity of stroking one's companion animal, which is one of countless ways to employ standard grounding through sensory input. Researchers Oliva

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<sup>8</sup> Lisa Najavits, "Seeking Safety: An Evidence-Based Model for Substance Abuse and Trauma/PTSD," in *Therapist's Guide to Evidence-Based Relapse Prevention*, ed. Katie A. Witkiewitz and G. Alan Marlatt (Cambridge: Elsevier Academic Press, 2007), 141–167; Najavits, Lisa M. *Seeking Safety: A Treatment Manual for PTSD and Substance Abuse* (New York: Guilford Press, 2002); Center for Substance Abuse Treatment (US), *Trauma-Informed Care in Behavioral Health Services: Treatment Improvement Protocol (TIP) Series*, No. 57. Rockville (MD), <https://store.samhsa.gov/sites/default/files/d7/priv/sma14-4816.pdf>.

<sup>9</sup> Najavits, "Seeking Safety."

<sup>10</sup> Center for Substance Abuse Treatment (US), *Trauma-Informed Care*.

<sup>11</sup> Dialectical Behavioral Therapy, "T5: Grounding," <https://dialecticalbehaviortherapy.com/distress-tolerance/grounding/>.

<sup>12</sup> Najavits, "Seeking Safety."

and Green<sup>13</sup> exemplify this through a dog-assisted mindfulness intervention for adults, in which a standard mindfulness recording was used as a self-help intervention and participants were instructed to use their respective dog's fur as their focal point as they applied the mindfulness skill (rather than having each individual participant selecting a focal point of their choosing). Participants reported increased feelings of relaxation, happiness, and engagement both during and following the intervention.<sup>14</sup> Gandenberger et al.<sup>15</sup> noted that students at a residential/day treatment center experienced grounding through time spent with horses.

## Relating

“Relating” mentally to a previous positive association to evoke positive feelings in a stressful current situation is a second long-standing coping skill in the GRR Method. Mental imagery is typically the vehicle in which the positive association is represented and through which such relation occurs. Purposefully mentally focusing on an existing positive relationship with a person, animal, place, etc. to evoke related positive feelings exemplifies a strategic use of associations built through behavioral conditioning; conditioning is a foundational tool in behavior therapy approaches.<sup>16</sup> Imagery and conditioning are widely used in behavior therapies to facilitate desired changes.<sup>17</sup> Relating to positive associations embedded in mental imagery is a skill that is used in psychological interventions for adults<sup>18</sup> and youth.<sup>19</sup> The deliberate

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<sup>13</sup> Jessica Lee Oliva and Tim Robert Green, “Dog Tales: Mindful Dog Interactions Evoke Similar Experiences to Dog Assisted Mindfulness Meditations,” *Animals* 11, no. 7 (2021): 2104, <https://doi.org/10.3390/ani11072104>.

<sup>14</sup> Oliva and Green, “Dog Tales,” 2104.

<sup>15</sup> Jaci Gandenberger, Marisa Motiff, Erin Flynn, and Kevin N. Morris, “Staff Perspectives on the Targeted Incorporation of Nature-Based Interventions for Children and Youth at a Residential Treatment Facility,” *Residential Treatment for Children & Youth* 40, no 1 (2023): 67–86, <https://doi.org/10.1080/0886571X.2022.2096169>.

<sup>16</sup> Ralph Miller and Randolph Grace, “Conditioning and Learning,” in *Handbook of Psychology* 4, ed. Alice Healy (New Jersey: John Wiley & Sons, Inc, 2003).

<sup>17</sup> Julie L. Ji, Stephanie Burnett Heyes, Colin MacLeod, and Emily A. Holmes, “Emotional Mental Imagery as Simulation of Reality: Fear and Beyond—A Tribute to Peter Lang,” *Behavior Therapy* 47, no. 5 (2016): 702–719, <https://doi.org/10.1016/j.beth.2015.11.004>.

<sup>18</sup> Mika Koivisto and Simone Grassini, “Mental Imagery of Nature Induces Positive Psychological Effects,” *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues* (December 2022), <https://doi.org/10.1007/s12144-022-04088-6>.

<sup>19</sup> Victoria Pile, Williamson Grace, Saunders Aleks, Holmes Emily A., and Jennifer Y.F. Lau, “Harnessing Emotional Mental Imagery to Reduce Anxiety and Depression in Young People: An Integrative Review of Progress and Promise,” *Lancet Psychiatry* 8, no. 9 (2021): 836–852, [https://doi.org/10.1016/S2215-0366\(21\)00195-4](https://doi.org/10.1016/S2215-0366(21)00195-4).

evoking of positive feelings through focusing on existing positive associations is also used as a stand-alone skill in evidence-based trauma intervention.<sup>20</sup> Relating to mental representations of past positive associations to elicit positive feelings in the present will henceforth be referred to as *relating*.

Relating can entail what many anecdotally refer to as “going to my happy place,” in which a person mentally visualizes their favorite vacation spot and focuses on the feelings related to being there; relating to positive imagery is widely used as a coping skill.<sup>21</sup> Alternatively, one could envision an image of cuddling with one’s companion animal and purposely evoke the associated positive feelings. The GRR Method again simply proactively proposes this companion animal-oriented application of “relating” out of one of many positive associations that a given person holds and may be able to evoke and relate positively to.

## Reframing

Reframing is a simplified approach to a core technique within Cognitive Therapy (CT) and Cognitive Behavioral Therapy (CBT) known as cognitive restructuring.<sup>22</sup> CBT, which combines CT and behavior therapy, is considered an evidence-based practice used with adults and children for a range of mental health conditions including anxiety disorders<sup>23</sup> and depressive disorders.<sup>24</sup> Cognitive restructuring within CT entails systematically evaluating and challenging dysfunctional thoughts as part of a complex theoretically driven case-formulation.<sup>25</sup> When decoupled from CT and used as a stand-alone skill, cognitive restructuring has evidence of effectiveness in reducing mental health symptoms such as

<sup>20</sup> Najavits, “Seeking Safety.”

<sup>21</sup> Ji, Burnett Heyes, MacLeod, and Holmes, “Emotional Mental Imagery.”

<sup>22</sup> Judith Beck, *Cognitive Behavioral Therapy: Basics and Beyond* (New York: The Guilford Press, 2011); Marketa Ciharova, Toshi A. Furukawa, Orestis Efthimiou, Eirini Karyotaki, Clara Miguel, Hisashi Noma, Andrea Cipriani, Heleen Riper, and Pim Cuijpers, “Cognitive Restructuring, Behavioral Activation and Cognitive-Behavioral Therapy in the Treatment of Adult Depression: A Network Meta-Analysis,” *Journal of Consulting and Clinical Psychology* 89, no. 6 (2021): 563–74, <https://pubmed.ncbi.nlm.nih.gov/34264703/>.

<sup>23</sup> Jean-Daniel Carrier, Frances Gallagher, Alain Vanasse, and Pasquale Roberge, “Strategies to Improve Access to Cognitive Behavioral Therapies for Anxiety Disorders: A Scoping Review,” *PLoS ONE* 17, no. 3 (2022): 1–23, <https://doi.org/10.1371/journal.pone.0264368>.

<sup>24</sup> José A. López-López, Sarah R. Davies, Deborah M. Caldwell, Rachel Churchill, Tim J. Peters, Deborah Tallon, Sarah Dawson, Qi Wu, Jinshuo Li, Abigail Taylor, Glyn Lewis, David S. Kessler, Nicola Wiles, and Nicky J. Welton, “The Process and Delivery of CBT for Depression in Adults: A Systematic Review and Network Meta-Analysis,” *Psychological Medicine* 49, no. 12 (2019): 1937–1947, <https://doi.org/10.1017/S003329171900120X>.

<sup>25</sup> Beck, *Cognitive Behavioral Therapy*.

depression<sup>26</sup>. While cognitive restructuring and reframing are used interchangeably to indicate use as a stand-alone skill, to make explicit the theoretical uncoupling from cognitive theory, term *reframing* will be used henceforth.

Reframing has been referred to as “the art of talking to oneself,”<sup>27</sup> as it involves a series of mental self-talk steps in which a person identifies a thought, evaluates the thought, and if appropriate chooses an alternate thought that is more helpful. The GRR Method proposes that this self-talk process of reframing simply be externalized and verbalized to one’s companion animal; while the animal will not understand the specific content, they will likely enjoy being talked to and provide an engaged and nonjudgmental “sounding board” for the reframing process.

A One Health approach that prioritizes both human and animal well-being is central to applying these three coping skills in partnership with a companion animal. Simply put, a One Health recognizes and builds upon the linkages between human, animals, and environmental well-being to improve outcomes that could not be achieved without such an integrative focus.<sup>28</sup> The engagement of a companion animal in applications of grounding, relating, and reframing skills can be a source of enrichment and pleasurable interaction for that respective animal. However, as living autonomous beings, companion animals may not always be ready or willing to engage in such activities; identifying and respecting an animal’s cues is a crucial part of a One Health partnership that prioritizes both human and companion animal well-being.

## Companion Animal Welfare and the GRR Method

### Companion Animals as Partners

Our companion animals are typically bonded to us; we are frequently their primary source of attention and affection and responsible for their well-being. They often enjoy when we talk to, touch, play with, and otherwise interact in focused mutually enjoyable ways with them. At the heart of our relationships with companion animals

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<sup>26</sup> Ciharova, Furukawa, Efthimiou, Karyotaki, Miguel, Noma, Cipriani, Riper, and Cuijpers, “Cognitive Restructuring.”

<sup>27</sup> Jerry A. Schmidt, “Cognitive Restructuring: The Art of Talking to Yourself,” *Personnel & Guidance Journal* 55, no. 2 (1976): 71, <https://doi.org/10.1002/j.2164-4918.1976.tb04618.x>.

<sup>28</sup> Karin Hediger, Andrea Meisser, and Jakob Zinsstag, “A One Health Research Framework for Animal-Assisted Interventions,” *International Journal of Environmental Research and Public Health* 16, no. 4 (2019), <https://doi.org/10.3390/ijerph16040640>.

is the mutuality and reciprocity we share with them. They are not robots or stuffed animals; their affection and attention are given to us of their own accord, and this is generally why it is meaningful (one notable exception being when robotic “pets” are used for some individuals with neurocognitive disorders who may not be able to distinguish between the robotic animal and living animals). Forcing companion animals to interact with us (outside of safety, veterinary, and other contexts in which it may be a requirement for the animal’s well-being) when they—for whatever reason—are choosing not to do so is potentially harmful to both the animal’s well-being and the quality of our relationship with the animal. In applying grounding, relating, and reframing skills through partnership with a companion animal, it is thus necessary to consider the notion of a partner as it pertains to a non-human animal.

The term partner in the GRR Method is meant to refer to one of two *willing* members of a pair who are *mutually* engaged in a shared activity. In order to be willing, each partner—human and non-human animal—must have a voice and a choice in whether to participate.<sup>29</sup> Although the communication expressions vary by species, such as through body language, behaviors, vocalizations, etc., all companion animals do communicate to varying degrees. All companion animals are also individuals; each is a unique being with preferences, likes, dislikes, and so forth with regards to how they are petted and interacted with. For the GRR Method to afford mutual benefit to both the person *and* animal involved, it is necessary for the person to learn about and be responsive to their animal’s species-specific body language as well as their animal’s individual quirks and preferences. For instance, when my dog Henderson seeks a belly rub from a human, he sits down and lifts one of his front legs high to expose his chest and belly. Many people misunderstand and think he is attempting to “shake hands” when he is actually attempting to solicit pets.

If an animal indicates with avoidant behavior or lack of response that they are unwilling or unable to engage in a GRR Method-related interaction, a person can certainly proceed in applying the skill, *without involving their animal*. Forcing an animal—for example, pulling the animal, restraining the animal, or otherwise impeding the animal’s autonomy in the interaction—to assist with applying a coping skill violates the premise of a mutually beneficial partnership that is foundational to the GRR Method. A person experiencing a stressor and related stress reaction may not be in the best place to identify or honor an animal’s communication; if a person’s ability to do this is in question, it is best to proceed with application of the coping skills *without* companion animal involvement unless the animal explicitly engages with the person of their own volition.

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<sup>29</sup> Risè VanFleet and Tracie Faa-Thompso, “Animal-Assisted Play Therapy,” in *Play Therapy: A Comprehensive Guide to Theory and Practice*, ed. David A. Crenshaw and Anne L. Stewart (New York: The Guilford Press, 2015), 201–214.

## The GRR Method as an Animal Welfare/Enrichment Strategy

Knowledge on how human-animal relationships and interactions are experienced from the perspective of non-human animals is sparse; in part because of the cross-species data collection/comprehension barriers. Despite such barriers, to truly approach a relationship with an animal from a One Health partnership perspective—for the purpose of improving animal as well as human well-being—it is important to make efforts to understand the animal’s experiences, needs, and preferences, however imperfectly.

In their seminal paper, Rault et al.<sup>30</sup> reviewed literature for indicators of a positive human-animal relationship from the perspective of the animal. They delineated that from the perspective of non-human animals, the mechanisms entailed in a positive human-animal relationship were habituation, associative learning, and attachment/bonding. Rault et al.<sup>31</sup> identified the following positive indicators from the animal pertaining to the human-animal relationship: voluntary approach; spatial proximity (seeking closeness); species-specific signs of positive anticipation, pleasure, relaxation, and/or enjoying; and other species-specific indicators of a rewarding experience from interaction with humans.

The importance of providing the animal choice and control (consistent with the elements of animal consent discussed in the previous section of this paper) over whether and how to interact with humans is underscored as an important element of positive experience from the animal’s perspective.<sup>32</sup> Rault and colleagues concluded that “overall, there is growing evidence in the scientific literature that a positive human-animal relationship can bring intrinsic reward to the animals and thereby benefit animal welfare.”<sup>33</sup>

In the field of animal welfare, the term enrichment is used to refer to “the addition of stimuli or provision of choice that results in the improvement of animal well-being.”<sup>34</sup> Companion animals and other domestic animals often seek out and appear to enjoy human company as a form of stimuli. Offering one’s companion

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<sup>30</sup> Jean-Loup Rault, Susanne Waiblinger, Xavier Boivin, and Paul Hemsworth, “The Power of a Positive Human-Animal Relationship for Animal Welfare,” *Frontiers in Veterinary Science* 7 (November 2020), <https://www.frontiersin.org/articles/10.3389/fvets.2020.590867/full>.

<sup>31</sup> Rault, Waiblinger, Boivin, and Hemsworth, “The Power of a Positive Human-Animal Relationship.”

<sup>32</sup> Rault, Waiblinger, Boivin, and Hemsworth, “The Power of a Positive Human-Animal Relationship.”

<sup>33</sup> Rault, Waiblinger, Boivin, and Hemsworth, “The Power of a Positive Human-Animal Relationship.”

<sup>34</sup> Cassie K. Kresnye, Chia-Fang Chung, Christopher Flynn Martin, and Patrick C. Shih. “Survey on the Past Decade of Technology in Animal Enrichment: A Scoping Review,” *Animals* 12, no. 14 (2022): 1792, <https://doi.org/10.3390/ani12141792>.

animal the opportunity to participate in *grounding* by petting the animal and in relating by *talking* to the animal (as explicated via the GRR Method) offer enrichment for that animal, if the animal's communication regarding whether or not the interaction is desired is recognized and heeded. "Animals may perceive interacting with humans per se as rewarding,"<sup>35</sup> however, the animal's autonomy within the interaction is a critical component.

## Understanding the GRR Method Skills in the Context of Human Stress Response

Grounding, relating, and reframing skills each target aspects of human stress responses. The human Autonomic Nervous System (ANS) controls and regulates internal functions without any conscious recognition or effort, reflexively shifting states in response to stressors and safety input, without requiring conscious human awareness.<sup>36</sup> While human responses to stress are physiologically complex, for the purposes of conceptually situating the GRR Method for everyday application, a simplified breakdown of the ANS stress response can be useful.

The ANS stress response can be delineated into three components, each with a corresponding mental "state."<sup>37</sup> These three components are: the Parasympathetic Nervous System (PNS); the Sympathetic Nervous System (SNS); and the Ventral Vagal Complex (VCC).<sup>38</sup>

The PNS is referred to as the brake pedal for the ANS and is associated with the "freeze" state stress response.<sup>39</sup> The Sympathetic Nervous System (SNS), in contrast, is the "fight or flight" state—associated with increased heart rate, respiration rate, and blood pressure—and helps mobilize the body's energy to react; the SNS is also referred to as the "gas pedal" for our ANS.<sup>40</sup> The least well-known part of the ANS is the VCC; the VCC is part of the PNS in social mammals; it is associated with a "social engagement" state; enabling humans to automatically calm in response

<sup>35</sup> Rault, Waiblinger, Boivin, and Hemsworth, "The Power of a Positive Human-Animal Relationship."

<sup>36</sup> Jeremy Woodcock, *Families and Individuals Living with Trauma* (London: Palgrave Macmillan, 2022).

<sup>37</sup> Stephen W. Porges, "Polyvagal Theory: A Primer," in *Clinical Applications of the Polyvagal Theory: The Emergence of Polyvagal-Informed Therapies*, ed. Stephen W. Porges and Deb Dana (New York: W. W. Norton & Company, 2018), 50–69.

<sup>38</sup> Porges, "Polyvagal Theory: A Primer."

<sup>39</sup> Porges, "Polyvagal Theory.;" Woodcock, *Families and Individuals Living with Trauma*.

<sup>40</sup> Porges, "Polyvagal Theory.;" Woodcock, *Families and Individuals Living with Trauma*.

to safety/soothing social cues from others (also known as co-regulation) or ourselves (self-regulation).<sup>41</sup> As social mammals, humans have this “social engagement” stress response as a strategy for dealing with stressors.<sup>42</sup>

To help facilitate adaptive stress responses when people experience stressors and mental health symptoms, numerous approaches have been developed and researched. Many of the stressors being faced in modern society, particularly those associated with the pandemic, cannot be well resolved with fight or flight stress responses. Unfortunately, the “fight or flight” response remains a default stress response for humans, and when the limbic system is activated, it is difficult to access and fully utilize the pre-frontal cortex to problem solve.<sup>43</sup> Similarly, when in the “freeze” state, it is difficult to access the pre-frontal cortex to rationally think about and problem solve an issue that is creating stress.<sup>44</sup> The optimal accessing of the pre-frontal cortex occurs when a human is in a calm and alert state congruent with the “social engagement” ANS response.<sup>45</sup> The three skills that comprise The GRR Method—grounding, relating, and reframing—have evidence of stand-alone utility in stress management.

## Applying the GRR Method

### Overview

To recapitulate, the GRR acronym stands for grounding, relating, and reframing. Within the GRR Method, the following definitions are used: grounding refers to actions that involving focusing one or more of our five senses in something in the immediate physical environment to help a person reengage with their physical body and the present time<sup>46</sup>; relating entails focusing on something or someone a person has an existing positive association with, in order to elicit the associated positive feelings<sup>47</sup>; and reframing involves identifying, evaluating, and adjusting (if necessary) one’s thoughts.<sup>48</sup> These three skills are focused in the GRR Method for three

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<sup>41</sup> Porges, “Polyvagal Theory.”

<sup>42</sup> Porges, “Polyvagal Theory.”

<sup>43</sup> Porges, “Polyvagal Theory.”

<sup>44</sup> Porges, “Polyvagal Theory.”

<sup>45</sup> Porges, “Polyvagal Theory.”

<sup>46</sup> Najavits, “Seeking Safety.”

<sup>47</sup> Najavits, “Seeking Safety.”

<sup>48</sup> Ciharova, Furukawa, Efthimiou, Karyotaki, Miguel, Noma, Cipriani, Riper, and Cuijpers, “Cognitive Restructuring.”

reasons: firstly, these specific skills emerged through practice and anecdotal experiences and accounts as useful and amenable to incorporating animal participation; secondly, they each have substantive research support for use as stand-alone stress management strategies; and thirdly, each skills offers utility in addressing particular aspects of the human ANS stress response.

### The Three Steps in the GRR Method

The first step in the GRR Method entails becoming explicitly aware of and acknowledging that one is experiencing a stressor in the present moment. To maximize the timing and helpfulness of a stress/coping skill, a person must be able to identify that they are currently experiencing something that is stressful. A simple mental statement to oneself that acknowledges the stressor—for example, “I’m feeling really stressed waiting for the results of my biopsy”—will suffice.

The second step in the GRR Method is to attempt to determine (to the extent possible depending on how one’s stress response is impacting one’s cognitive abilities) which of the three ANS stress response states one is currently in, for example, fight or flight, freeze, or social engagement. To recapitulate, in the fight-flight state, a person’s sympathetic nervous system “gas pedal” is pressed down and the person’s body is primed for rapid physical responses (e.g., running or physically fighting) to the stressor through heart rate acceleration and associated body reactions.<sup>49</sup> When in the freeze state, the parasympathetic “brake pedal” is pressed down in the freeze state, the heart rate decelerates, and a person’s bodily functions are slowed and inhibited.<sup>50</sup> When in the social engagement state, a person is able to calmly and cooperatively engage with others and oneself to logically problem solve to address stressors.<sup>51</sup>

The third step in the GRR Method is to select and use the GRR skill that best fits the body’s stress response, in collaboration with their companion animal (*if* the animal indicates willingness, see Companion Animals as Partners section). When in a freeze state, using the grounding skill via physical actions that engage one’s senses—seeing, hearing, seeing, tasting, and touching—is a commonly recommended strategy. In the fight-flight state, consciously mentally relating to someone or something that one holds a strong positive association toward—such as a companion animal—can help to self-soothe and calm oneself.<sup>52</sup> The use of grounding and relating may help a person to shift into a social engagement state; in the social engage-

<sup>49</sup> Woodcock, *Families and Individuals Living with Trauma*.

<sup>50</sup> Woodcock, *Families and Individuals Living with Trauma*.

<sup>51</sup> Porges, “Polyvagal Theory.”

<sup>52</sup> Najavits, “Seeking Safety.”

ment state, a person can engage with themselves more readily do the higher-level thinking entailed in reframing their thoughts.<sup>53</sup>

### Using the GRR Method Skills

A companion animal can help to facilitate the application of grounding, relating, and reframing skills, and simultaneously be provided a positive and enriching interaction with a human; this is the central premise of the proposed GRR Method. Again, the willingness and ability of the companion animal to participate in the GRR Method is a crucial consideration. If the human's distress/stress response is negatively impacting the animal, this is definitely a reason to discard the GRR Method and use other coping strategies.

In doing *grounding* activities, a companion animal can assist in sensory engagement in a range of ways that are helpful for the person and pleasant for the animal (assuming the animal is consenting); examples of this include but are not limited to:

- feeling the warmth of the animal's body,
- feeling the weight of the animal (if holding the animal or the animal is seated on the person),
- feeling the texture of the animal's fur (hair, scales, feathers, etc.),
- looking at the different colors on the animal's fur (hair, scales, feathers, etc.),
- watching and/or feeling and/or listening to the animal's breathing/the rise and fall of the animal's chest,
- sniffing the animal's fur,
- listening to the animal purr and feeling the purr vibrations (cats only).

Involving one's companion animal to use effectively use *relating* skills entails an assumption that one holds a strong positive attachment/association to one's animal; if this is not the case, there will not be a pre-existing positive association to the companion animal from which to positively relate to. If in a place where the animal is not present while experiencing a fight-flight response, a person can mentally evoke their relationship with their companion animal to relate to associated positive emotions. Deliberately thinking of and holding the mental image or thought of a cherished companion animal in one's mind enables one to relate to and feel the positive feelings associated with the companion animal. If a person is actually in the presence of their animal, positive associations from a mental focus on the animal may be amplified with the animal's actual physical presence and positive interactions with the animal such as petting, playing, and/or talking to them.

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<sup>53</sup> Porges, "Polyvagal Theory."

*Reframing* has been referred to as “the art of talking to yourself”<sup>54</sup> and requires thinking explicitly about the content and accuracy of one’s own thoughts. When in the social engagement state, the prefrontal cortex part of the brain can be easily accessed to preform coping skills such that entail more intricate cognitive activity<sup>55</sup> such as reframing. Simplified basic steps of reframing are as follows:

1. Identify the thought you are having when you are distressed.
2. Assess that thought. Is it true? Is it helpful?
3. Generate alternative thoughts that are both reasonable and positive.
4. Change your self-talk to incorporate alternative thought(s).

Reframing using the GRR Method entails following the above steps, but rather than mentally dialoging with oneself or writing the steps out, the person speaks aloud to their companion animal as they talk through the steps. Reframing via the GRR Method can thus be considered the art of talking to one’s companion animal.

### A GRR Method Example

I (the author of the present text) am a cancer survivor, and, with much foreboding, get scanned every six months to check for recurrence. After my most recent scan, I felt anxious and identified the following automatic thought: “She [the radiology staff] was friendly and joking when I came in but looked sad and serious when I left. She saw something bad on my scan.”

When I returned home, I sat down on my couch and my small dog Henderson voluntarily jumped on my lap and remained there (thus demonstrating affiliative behavior, proximity seeking, and consent). I stated to Henderson: “Henderson, I am kind of freaking out. Here is what I was thinking in there: She [the radiology staff] was friendly and joking when I came in but looked sad and serious when I left. She saw something bad on my scan.” In keeping with basic reframing tenets, I asked myself and Henderson aloud whether my thoughts were true and whether they were helpful. I had no way of knowing if they were true at that time, but they certainly were not helpful thoughts for me. I then asked Henderson what other thoughts might be more helpful, and answered my own question, verbalizing my thoughts: “...maybe she thought of something she had to do or forgot to do that had nothing to do with me... she could have a headache or be tired or hungry and it started to hit her during my appointment... she didn’t tell me to wait while she called the doctor, that’s what happens when it’s bad, and that didn’t happen.” Henderson tilted his head and wagged his tail, then reached up and licked my cheek. At this point, I felt much less anxious.

<sup>54</sup> Schmidt, “Cognitive Restructuring.”

<sup>55</sup> Porges, “Polyvagal Theory.”

When Henderson jumped on my lap, he provided immediate grounding for me through his weight and warmth. My positive associations with him likewise helped to keep me in a calm enough emotional state to cognitively engage in reframing via talking aloud to Henderson.

Henderson did not have any content-specific responses to my monologue, but he evidenced canine-specific signals that he enjoyed being spoken to; for instance, he leaned his body against me, wagged his tail throughout our “conversation,” and occasionally licked my arm and face. Had I not externalized my dialogue with myself, I would have been internally focused rather than having a partially external-ly focused interaction that included Henderson and afforded him some enrichment/attention after I had been away from home (and him!) for several hours.

## Conclusion and Future Directions

In sum, the GRR Method is a One Health strategy for applying existing evidence-based human coping skills in ways that proactively incorporate the human-animal bond, for the mutual benefit of the people and animals involved. Through companion animal involvement, it is also likely that biopsychosocial benefits of human-animal interaction (HAI) may augment the actual effectiveness of the skills entailed in the GRR Method. Beetz et al.<sup>56</sup> proposed that the release of oxytocin mediates many of the benefits of human-animal interaction across physical, psychological, social, and emotional dimensions of human functioning, and refers to this as the stress-mediation response. Whether doing grounding skills entailing sensory engagement with one’s companion animal, mentally relating to the positive associations one has with one’s companion animal or talking aloud to one’s companion animal about one’s thoughts, it is likely that oxytocin and its associated benefits are moderating forces. The release of oxytocin (and associated benefits) can also occur in the companion animal during interactions with humans,<sup>57</sup> and the animal may likewise experience the benefits associated with oxytocin release.

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<sup>56</sup> Andrea Beetz, Kerstin Uvnäs-Moberg, Henri Julius, and Kurt Kotrschal. “Psychosocial and Psychophysiological Effects of Human-Animal Interactions: The Possible Role of Oxytocin,” *Frontiers in Psychology* 3 (July 2012), <https://doi.org/10.3389/fpsyg.2012.00234>.

<sup>57</sup> Linda Handlin, Eva Hydbring-Sandberg, Anne Nilsson, Mikael Ejdebäck, Anna Jansson, and Kerstin Uvnäs-Moberg, “Short-Term Interaction between Dogs and Their Owners: Effects on Oxytocin, Cortisol, Insulin and Heart Rate—An Exploratory Study,” *Anthrozoös* 24, no. 3 (2011): 301–315, <https://doi.org/10.2752/175303711X13045914865385>.

Future research is needed to examine how the benefits of companion animal interaction can augment evidence-based coping skills such as those in the GRR Method, as well as explore how inviting companion animals to partner with us in our mental health strategies can serve as a source of enrichment for animal welfare. When approached through a One Health lens, our relationships with companion animals offer continual opportunities to enhance both human and non-human animal well-being.

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