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2019

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### Recommended Citation

Chi, Tim, "A Behavior Analytic Translation of Erving Goffman's Frame Analysis" (2019). *Graduate School of Professional Psychology: Doctoral Papers and Masters Projects*. 355.

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# A Behavior Analytic Translation of Erving Goffman's Frame Analysis

## Abstract

The sociologist Erving Goffman's 1974 work, "Frame Analysis," is an attempt to account for how people construct and organize meaning in their experiences. The central principle in this approach is that of the frame: An abstractive concept that refers to the totality of environmental events and stimuli exerting some influence on how people behave in a particular setting and time, with respect to the expectations, roles, and norms to be observed.

Though Frame Analysis was developed within the discipline of sociology, it converges in apparently useful ways with the work of clinical psychology, both in its content and epistemology. Goffman's approach demonstrates a particular affinity with the principles and sensibilities of Behavior Analysis, which is likewise an inductive, process-oriented approach, but geared toward predicting and influencing human behavior. As such, the present paper will translate Goffman's Frame Analysis into the language and principles of Behavior Analysis, beginning with a review of key constructs, principles and limitations of both approaches before converting Goffman's ideas into terms more easily utilized in the domain of clinical work. This translation will be concurrently exemplified by a specific, de-identified clinical case study. The overarching aspiration is to bring a useful set of principles from sociology to bear on important issues in clinical psychology.

## Document Type

Doctoral Research Paper

## Degree Name

Psy.D.

## Department

Graduate School of Professional Psychology

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## Keywords

Frame analysis, Psychotherapy, Behavior analysis, Goffman, Skinner

## Subject Categories

Clinical Psychology | Psychoanalysis and Psychotherapy | Psychology

## Publication Statement

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A Behavior Analytic Translation of Erving Goffman's Frame Analysis

A DOCTORAL PAPER  
PRESENTED TO THE FACULTY OF  
THE GRADUATE SCHOOL OF PROFESSIONAL PSYCHOLOGY  
OFFICE OF GRADUATE STUDIES  
UNIVERSITY OF DENVER

IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE OF  
DOCTOR OF PSYCHOLOGY

BY  
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March 27<sup>th</sup>, 2019

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### Introduction

*Frame Analysis* was published in 1974 by the sociologist Erving Goffman as an examination of the many ways by which human beings construct, organize, and differentiate among all the possible meanings of their experiences in any given situation. Goffman adopts an inductive approach to formulating patterns that account for behaviors observed across a broad variety of settings and contexts. From this he delineates a number of concepts forming the core of frame analysis, the practice of which simply means to account for human behavior in the terminology and epistemology of those concepts. Because Goffman was operating as a sociologist, he primarily approached behavioral events from a group-level perspective even as he described many situations and contingencies that would be consistent with and useful to the idiographic perspectives and interests of clinical-psychological disciplines.

It is precisely that final point which inspires the guiding question of this paper: how can frame analysis be usefully adapted for the work of clinical psychology, and for what uses? The most immediately apparent connection begins with the fact that clinical interactions are necessarily social situations, and ones wherein the participants' behavioral topographies bear formal similarities to those in other social situations (*e.g.*, party conversation, parenting). Frame analysis would then be perfectly positioned for clarifying how it is that patients (and clinicians) discriminate the therapy frame from other frames, and more importantly, and how they sometimes *fail* to do so. Since such framing is known to affect therapeutic outcomes (Gregson & Lane, 2000), the application of frame analysis carries substantial implications for clinical psychology.

Even so, this leaves considerable breadth in possible approaches to answering that question—psychology remains in the pre-paradigmatic phase of a scientific discipline, which is characterized by multiple competing theoretical frameworks rather than one consensus framework (Kuhn, 1962). Therefore, this paper will adopt the theoretical framework of radical behaviorism—and its practice of behavior analysis—as the ground understanding of clinical psychology. The first consideration for this choice is that *some* framework must simply be chosen, and radical behaviorism/behavior analysis (these two terms will be used interchangeably) remains a productive one in terms of generating research in both basic science (Ward-Horner, et al., 2016) and applied technologies (Davids, Roman, & Leach, 2017).

The second, more compelling consideration is that radical behaviorism is founded on philosophical assumptions which lead to epistemological sensibilities highly consistent with those of Erving Goffman. It is a pragmatic-contextualist framework, eschewing the essentialist/ontological orientation for a process orientation that understands any event of interest as arising interdependently from the confluence and disjunction of other events (Hayes, Hayes & Reese, 1988). Similarly, frame analysis views the experience of meaning as circumstantial to the particular arrangement(s) of events and stimuli relative to some given situation(s); the functional relations among events is what matters, just as in radical behaviorism. This philosophical concomitance suggests the possibility of a more coherent translation between these two frameworks, as compared to one operating on different epistemological premises (*e.g.*, Aristotelian cognitivism).

With that as a departure point, the rest of this paper will answer the above guiding question by first reviewing in greater detail the key concepts and sensibilities of Goffman's

frame analysis, and how it might fit within a clinical context. This will be followed by an overview of radical behavioral/behavior-analytic concepts, after which several key concepts from frame analysis will be translated into the behavior-analytic framework, accompanied by clinical case examples. Through this process, the above question will be partially answered by examining the flip-side of the philosophical concomitance between frame analysis and behavior analysis, *i.e.*, where they depart from each other, and how clinical approaches can benefit by using the differences between each to fill in the weaknesses of each. Frame analysis may offer a set of maps for further conceptualizing the contingencies of reinforcement and punishment within a therapeutic relationship, shining attention on how various behaviors or stimuli may come to idiographically take on discriminative, appetitive, and/or aversive functions. In return, behavior analysis may elucidate the developmental rhythms of how individuals come to learn to frame—and mis-frame—events, and how they might *re-learn* how to do the same. It is this final possibility which holds the greatest promise for clinical applications.

#### Frame Analysis

Goffman opens *Frame Analysis* (1974) by referencing a question earlier posed by William James: under what circumstances do we act *as though* things were “real”? Goffman’s answer is the concept of the “frame”: a definition of some given situation that is prompted by signs, and that guides and potentiates the response repertoires (including attention) of any and all participants, by implying if not explicating roles and rules for behavior.

The first crucial concept is that of the primary frame, which is some situation-definition that is treated as accounting for all the observed features and outcomes of some event such that no other frames are needed to understand what it was that “happened.” This concept carries no

ontological weight, as primary frames are not “truer” or “realer” than any others, but are “primary” only in the sense that participants within it act only according to its definition and no others’. This is consistent with the philosophical pragmatism of James’s epistemology, as well as that of behavior analysis, which avoids questions of ontology (*i.e.*, “what is real?”) by framing the act of knowing as itself a shaped behavior, leading it instead to ask, “What/how is this event happening here?” Goffman supplies an example which carries immediate clinical significance: the primary frame of “natural events,” versus that of “social agents.” He describes the former as often primary in situations centered around non-sapient participants, *e.g.*, the weather, mechanical engineering, and is understood as a procession of more or less inexorable happenings in sequence and/or in parallel; the roles and rules for behavior are merely descriptive. In contrast, the latter is present in the presence of sapient participants, as it references some notion of “choice,” particularly whether any “choices” were “made” to follow the rules for behavior; here, such roles and rules are often both descriptive *and* prescriptive.

Importantly, because these frames are often primary (*i.e.*, treated as non-arbitrary), there frequently exists a tension such that participation in one (*i.e.*, human beings as choice-making agents) appears mutually exclusive with participation in the other (*i.e.*, human beings as biophysical phenomena). Goffman notes that malingering is a long-standing instance of how this framing tension is contended over by parties who may benefit or be expensed, in opposition, depending on the instantiation of one or the other (*e.g.*, the ostensibly “ill” child stays home from school, to the chagrin of parents and educators).

The clinical connection is to the recent trend of the medicalization of clinical psychology and mental health treatment—the latter term itself a product of that trend (Singer & Fourcher,

1979; Newnes, 2004). To the extent that the social agent frame impeded the distribution of societal resources for addressing psychopathology, the application of a natural event frame—the biomedical frame, which treats psychopathology as “illness”—has arguably and helpfully increased such resources by garnering broader recognition of psychopathology as problems which cannot be adequately addressed by *only* making different behavioral choices. This change is evident in the rhetorical tactics of those working to de-stigmatize psychopathology, *e.g.*, “If I had a broken leg, nobody would make me walk on it” (Lucy, 2012).

The consequences have been mixed, however, as this medicalization via natural event framing has, first, lead to a proliferation of pharmaceutical interventions, some of which remain dubious on the grounds of both overstatements of efficacy (Ioannidis, 2008; Cipriani, et al., 2018) and industry-related conflicts of interests (Bracken & Thomas, 2005; Aho, 2008). Second, it has also affected patients’ attitudes and expectations towards treatment (Greenberg, Constantino & Bruce, 2006) in a number of ways, such as tilting treatment focus strongly towards symptom removal or anchoring expectations for speed of progress to timelines incompatible with lasting behavioral change. This broader change in clinical psychological approaches suggest an immediate utility for even basic frame analytic concepts.

Once primary frames are established, situation-definitions are often further textured by a process Goffman calls *keying*, which is an activity “already meaningful in terms of some primary framework...transformed into something patterned on this activity but seen...to be quite something else” (Goffman, 1974, p. 44). The term “key” is itself a reference to musical keys, of which there are many into which a single piece could be transposed. All keys have in common this systematic transformation of function, which is achieved by cues and signals in the



environment and must be implicitly, if not openly, avowed by the participants in the keying. Another crucial feature of keys is the different roles they supply, compared to the untransformed event (*e.g.*, watching a boxing match carries different expectations from watching a bar fight).

Goffman identifies four keys: 1) make-believe, which are events acknowledged by participants as imitations of “real” activities and as producing no practical consequences; 2) contests, which are derived from fighting and dominance displays but tightly framed to control the extent of aggressive behavior; 3) ceremonials, which “function to constrict, allowing one deed...to be stripped from the usual texture of events and choreographed to fill out a whole occasion” (p. 58); and 4) technical re-doings, which are any activities performed for utilitarian purposes (*e.g.*, rehearsals, demonstrations) outside of its everyday purposes and contexts. Though Goffman also referenced a fifth key of regroundings, which is “the performance of an activity...openly for reasons or motives felt to be radically different from those that govern ordinary actors,” he also noted that it was conceptually troublesome in its fluidity as a category (pp. 74-75), and so I will not reference this key in this analysis.

A primary frame, then, can be transformed—keyed—to become something else while still resembling something “real.” It may also be *re-keyed* multiple times—children might pretend-play a wedding rehearsal (*i.e.*, a make-believe rekey of a re-doing rekey of a ceremonial key). The extent to which an event is rekeyed is referred to as lamination, with each additional keying being described as a layer. Goffman notes that layers do not necessarily accrete continuously, as some layers may terminate at a certain point in time before returning again later. Because keys are not primary frames, they are much more susceptible to being discredited (*i.e.*, seen as a contingent definition, rather than as “just the way things are”). A participant can

accomplish this if they escape punishment (or even secure reinforcement) after flouting a key's rules for behavior (*e.g.*, playing a non-word in Scrabble and earning points for it discredits the contest frame).

Therapy can be thought of as primarily framed as a professional relationship, where time/service is exchanged for a fee (Gray, 1994). This frame is keyed as a technical re-doing of the patient's behavioral repertoire, at least from the perspective of therapists and their training curricula. Then, because there are varied approaches to therapy, that technical re-doing is usually rekeyed according to the theoretical/philosophical orientation of some particular therapist. This manner of rekeying broadly falls into two types: therapy-as-relationship, which is a re-doing of behaviors occurring in significant psychosocial systems and formative relationships, and commonly identified with the psychoanalytic, systemic, and humanistic traditions; or therapy-as-training, which is a re-doing of specific, problematic or under-practiced behaviors and skills, and commonly identified with the cognitive and behavioral traditions. Of interest here will be the various discriminative stimuli that come to function as cues/signals to behave in accordance with whichever key obtains for a therapeutic dyad.

More interesting are the contingencies of framing and keying from the perspective of the patient, who each brings his or her unique learning history to what they rely on as a primary frame. Furthermore, their idiosyncratic histories will also shape the degree and style of laminations (*i.e.*, (re)keyings) that occur within whatever primary frame applies. For example, some patients might over-laminate, engaging in successive and/or parallel rekeyings that helps to evade contact with some aversive experience or meaning; others may under-laminate, and take the primary frame of therapy as primary not just to therapy, but to "reality" itself. Moreover,

some patients who operate on a primary frame of a caregiver relationship (as in the psychoanalytic conception) may rekey the technical re-doing aspect to the key of contests, which then leads to repeated confrontations and conflict between therapist and patient. Regardless of the impact on treatment effectiveness, it would be quite revealing of such a patient's psychology, particularly about how they learned to treat caregiver relationships as contests.

Because framed events necessarily involve a multitude of activities not directly relevant to “what it is that’s happening,” such activities are considered by Goffman to be “out of frame,” and therefore not to be directly attended (*e.g.*, ball-boys retrieving tennis balls during a stoppage of play). The most interesting out-of-frame activities are those that nonetheless influence activities within the frame; one of the most direct such examples is the use of punctuation in writing, as it is rarely the object of attention in reading despite its importance. In face-to-face interaction, such a “directional track,” as Goffman terms it, would include shifting posture, scratching, fidgeting—body language—as well as stimuli in the non-human environment, *e.g.*, lighting, ambient sounds, and symbolic stimuli. Such kinds of events are crucial to anchoring, which refers to the network of cues that establish (“bracket”) when and how some given event is now occurring, set off to varying degrees from the flow of “everything else.” Just as importantly, such brackets cue when the event at hand has ended; anchoring informs participants of how an event is both distinct from but still connected to the broader streams of goings-on about them.

There is considerable application of brackets, directional channels, and anchoring to a therapeutic setting. Well-established brackets exist for the beginning of therapy: traditionally the closing of the door, seating of the dyad for individual format, or gathering of the group for group format. With the more recent adoption of a medical model of practice, it may begin as early as

the check-in with the front desk in some care settings. Likewise, brackets exist to denote the end of therapy: traditionally the passage of some predetermined length of time (45 or 50 minutes being the norm), along with conversation about scheduling or financial arrangements in some cases (*i.e.*, the professional frame of therapy), or again the closing of the door.

As for directionals and anchoring, therapy encourages the dyad to bring behaviors that are typically out-of-frame, such as private thoughts, into frame-focus, whether this be the re-enactments of psychodynamic theory or the automatic thoughts of cognitivism. This also applies to body language and other incidental behaviors that would normally go unremarked upon in social settings, resulting in an environment where the distinction between in- and out-of-frame behaviors is more fluid than most.

The origins of the resulting tension that often accompany focusing such typically out-of-frame behaviors are multitude, but they lie at least partially in changes to the roles available within a frame (as noted above) and the expectations of how such roles are to be performed. Goffman's view of the relation between a person and their role(s) remains a-ontological, in that he denies the perdurance of some "essential" self which is partially or wholly expressed through some role(s). Because roles are pervasive—framing is a ubiquitous human activity—there is no meaningful sense in which a person and their self could ever *not* be playing a role. Rather, any such thing as a self could only be hinted at, through brief, unscripted glimpses of the variations in how a person plays the many roles she must inhabit. Notably, this shares much in common with the Buddhist conception of the no-self (Loy, 1996), a conception also heavily represented in contemporary behaviorism (Diller & Lattal, 2008; Boucher, 2011).

This being the case, the various framings of therapy occasion ambiguity about the expected roles and performance standards for the same (Duckro, Beal, & George, 1979; Karson, 2008), which may lead to anxiety and unsteady performance. When encountered in social settings, signs of such struggle are usually moved out of frame (*i.e.*, politely ignored), but because therapy is a frame that explicitly moves the out-of-frame into the frame, it aims to block the success of such a well-learned repertoire. This procession of events will typically produce tension, not the least of which is due to the discomfort experienced by the patient (and in many cases, by the therapist too). Moreover, it is in these interactions that the above-mentioned keying occurs; keyings also rely on bracketing to denote the beginning and end of the key change. Within the keyings that occur in the technical re-doings of therapy, more than both formal and relational stimuli take on the function of brackets. Particular styles and contingencies of interaction often function as these brackets keying the therapeutic dyad variously as strict teacher-rebellious student, or overwhelmed parent-resentful child, or whatever may arise depending on the dyad. Interestingly, one conceptualization of therapy from this perspective may be that the patient has never learned how to *close* the bracket on such a key, such that once a relationship is keyed this way it remains indefinitely so; therapy then, might involve learning how to close the bracket.

This leads to the occurrence of what Goffman calls framing errors, which occur when an individual acts on a definition of the situation that differs radically, either from that acted on by other participants or the laws of the physical world. The significance of such errors remain a-ontological, *i.e.*, the fact of the disjunction is not itself important, and matters only because they will lodge that individual in “the breeding of wrongly oriented behavior,” (Goffman, 1974,

p. 308), which may lead to adopting “a perspective that is radically inapplicable, which will itself establish a set...of expectations that will not work.” (Goffman, 1974, p. 309). This is a pragmatic understanding of “error,” as it is defined primarily with respect to the effectiveness of behaviors that result from situation-definitions.

Goffman divides framing errors into three broad domains—those occurring at the levels of primary frames, (re)keyed frames, and tracks. Primary frame errors are those which generate “wrongly oriented behavior” at the most basic levels of situation-definitions. Delusional and hallucinatory experiences are acute instances, but primary frame errors may also include overapplication of either the natural events frame, leading to disclaiming responsibility for behavior (*e.g.*, reference to low serotonin levels or abusive upbringing), or of the social agent frame, leading to over-claiming responsibility (*e.g.*, reference to self-discipline, free will, “grit”). Particular modes of power relations may also act at the primary level, such that an individual may only and rigidly signal low-status or high-status in their role performances (Karson, 2008).

Keying errors were alluded to above, such as rekeying technical redoings to contests. The significant consequence of keying errors is found in the degree of under- or over-lamination of situations, such that the former produces too much psychological distance to be properly engaged in an event, while the latter produces too little. Such mis-laminations could be specific to particular situations, or more broadly generalized; generalized over-lamination might correspond to instances of anhedonia (*e.g.*, intellectualization and cognitive distancing), while generalized under-lamination might correspond to those of hyper-lability (*e.g.*, applying the expectations of “friendship” to the therapy relationship). Track errors are exemplified by reading as directional tracks that which are not (*e.g.*, cancelling sessions as an indirect request for the patient to go

away) or missing directional tracks altogether; or dis-attending signs and cues that are better attended (*e.g.*, one's own private experiences in the moment, for patient and clinician both). This sort of telescoping classification is constructed such that each "lower" type of error is an extension of framing errors at the previous "higher" level—what is taken to be part of directional/disattend tracks depends on how a situation is keyed, and then keyings of any situation ultimately grow out of the primary frames that organize one's understanding of the world at large.

In defining framing errors, it may appear problematic that instances exist in which definitions that later turn out to be ineffective for the participants are sustained nonetheless, sometimes for lengthy durations, *e.g.*, a therapist collaborating with the patient (or vice versa) to maintain a patient's self-definition as immutably depressed for years. It is important to note that behavioral goals define "effective behavior," (Barnes-Holmes, 2000), and so a definition (frame) that is ineffective for one goal (recovery from depressive symptoms) may be effective and thus sustained for another (avoidance of conflict, for instance). Framing errors are therefore defined with respect to participants' goals, which are typically mixed and competing, sometimes incompatibly; to declare a "framing error" also implies an assertion of what it is that the participants might be after. Generally speaking, this would include at least the continued maintenance of familiar, coherent ways of framing one's identity and relationship to the world.

That being the case, what counts as "effective behavior" in therapy can be generally defined as helping patients to identify and correct the framing errors, and other factors, which lead to ineffective behavior—relative to their own goals and values—in other domains of life. Therapy is ideally positioned to do this, in no small part because those with framing errors

serious enough to require therapy are often in that position because of how generalized those errors have become. Moreover, the relative ambiguity of the therapy frame itself often occasions such errors on the part of the patient (and sometimes, the clinician), leading to *in vivo* instances of the problem at hand that can then be behaviorally reshaped (Kanter et al., 2017; Parth et al., 2017). The (ideally) constricted character of the disattend track in therapy is crucial to achieving such reshaping, as it is a key process by which errors are identified and progress of reshaping is evaluated. But because of the earlier-mentioned discomfort and vulnerability produced by this practice, a clear and consistent frame must organize the experience of therapy, and such is not always easily established, and less easily taken for granted.

This leads to the concept Goffman terms a “frame break”: the occurrence of competing framing cues, and/or absence of expected cues, which reduce or eliminate the power of a frame to organize attention and responding within a designated activity. An everyday example of the former might be point-shaving in a basketball game, thus initially introducing a competing frame for the participants, and then for the spectating audience if its existence is revealed. Of the latter might be a poker game where no money is bet, the absence of which stakes removes a behavior-organizing cue that would typically lead to the type of engagement and absorption and cautious play previously experienced and expected of the activity. The important result is that any activity must be properly framed so as to produce in participants the level and style of attending and responding within an event so as to produce the participants’ desired ends and role performances.

So it also obtains in a therapy setting, where cues learned from formally or symbolically related activities (*e.g.*, friendship) may come to compete with the therapeutic frame, or where



cues distinguishing the therapeutic frame (*e.g.*, privacy, fiduciary obligation) from similar others are absent. In such cases, an effective level of engrossment (as Goffman terms it) is unlikely to be achieved, making the ends of the therapy so framed unlikely to be met. If then, for example, a friendship frame obtains as a result of gestures typically cuing friendship, *e.g.*, mutual sharing about weekend activities, then the disattend track that typically attends friendship frames will also emerge, inhibiting the disclosure of important patient experiences. Conversely, if a therapeutic frame is absent, sufficient safety may not obtain to occasion exploration of the same, regardless of whether the explorations are about transference re-enactments or rule-governed behaviors or cognitively distorted schemas.

The preceding concepts—primary frames, keys and transformations, tracks and brackets, roles, frame errors, and frame breaks—constitute a basic foundation of frame analysis, particularly as it applies to psychotherapy. Several other concepts—fabrications and containments, theatrical frames, the manufacture of negative experience, to name a few—elaborated by Goffman are not here addressed despite their likely relevance to clinical work (*e.g.*, (self-)deception, or dramaturgical approaches to therapy), because such topics would become too unwieldy with respect to the aim of this paper, *i.e.*, a basic translation of frame analysis into behavior analysis. This next section briefly reviews the practice of behavior analysis before supplying such a translation

### Behavior Analysis

Behavior analysis is the scientific practice of formulating functional relations between the behavior of organisms and occasioning events in the environment, for the purposes of predicting and influencing future behavior (Skinner, 1938; Biglan & Hayes, 1996). As mentioned

previously, it is philosophically informed by a contextual, pragmatic epistemology that is a-ontological and takes successful working as its primary truth criterion (Skinner, 1938; Barnes-Holmes, 2000). Reflecting this sensibility, behavior analysis utilizes constructs which are abstractively defined: they are formulations of patterns among a subset of events in the environment, and they are not imputed any causal power in what is observed. They are simply descriptions of sufficient detail and focus to answer some particular analysis being conducted (Wilson, 2001).

At the level of theory, behavior analysis comprises the respondent and operant learning principles primarily attributed to I.P. Pavlov (Pavlov, 1926) and B.F. Skinner (1938, 1953, 1974), respectively. These principles are instances of the primary causal mode utilized by behavior analysis: selection by consequence. In this mode, “causation” is *not* imputed to a linear sequence that is both physically and temporally contiguous. Rather, events that are “caused” are simply those that continue to persist within their environment, due to the consequences they produce on that environment and the consequences thereby produced in them; it is multicausal, systemic, and can link “direct causation” to events both physically and temporally distal.

The very principle of operant conditioning illustrates this idea. Operant learning is said to occur when some defined behavior is observed to 1) increase or decrease following a consequence produced by or closely following the behavior, and 2) become cued by antecedent stimuli—events in the environment—which have regularly preceded the behavior-consequence relation. First, any behavior so “caused” is not simply the result of the preceding or postceding event by itself but of the total arrangement of all involved events. Second, such arrangements typically must occur multiple times for a behavior to become established in the repertoire,

meaning that a behavior's "cause" cannot be only what was immediately observed in some particular instance(s), but by the entire history that established the behavior; it is "caused" by its first learning trial as much as its most recent.

For this translation, several behavior-analytic concepts will play a central role. The first is an elaboration of the above: positive and negative reinforcement and punishment. Reinforcement can be defined abstractively as when a behavior increases in the presence of a discriminative stimulus (*e.g.*, signal or cue). Punishment, though never explicitly defined by Skinner, can be conceptualized as when an alternative, competing behavior increases in the presence of a discriminative stimulus linked to a different, initial behavior (Skinner, 1953). And here, "positive" describes contingencies wherein the presentation or presence of a consequence stimuli follows the behavior, while "negative" describes contingencies wherein the removal or absence of such a stimuli follows. Any such stimuli that function thusly with respect to an increased behavior are termed "reinforcers," and those with respect to an increased *alternative* behavior (and therefore, a decreased initial behavior) are termed "punishers." It is crucial to note that these two constructs are abstractively defined, and that "reinforcement" and "punishment" are not cleanly separable from each other (*i.e.*, when a behavior is "punished," some alternative necessarily emerges in its place). With few exceptions, there is nothing about any given stimuli that essentially or necessarily makes it a reinforcer or punisher; their categorization as either depends on observed (or conjectured) changes in the frequency of a behavior.

#### Translating Frame Analysis into Behavior Analysis

Frame analysis will now be conceptualized within the philosophy of pragmatism—how can its subject matter be formulated so that behavior analysis can say something about it, such

that the behavior-analytic frame is maintained? Since frame analysis concerns the activities of humans, the answer is simple: it concerns behaviors that people *learn* to do. From a behavior-analytic perspective, then, it is not useful to think about the existence of “frames” per se; what exists is *people framing events*. Applied to more specific concepts, there are no “primary frames,” but instead “primary framing,” just as there are no “brackets,” but instead “bracketing.” Recast with a focus on the specific actions of human beings, behavior analysis can be applied to formulate *how* people learned to frame events as they do. A translation of frame analysis into behavior analysis, then, consists in an explication of the learning histories and contingencies that shape the framing repertoire, which includes behaviors such as keying, bracketing, or breaking.

In behavior analysis, learning is usefully described as a combination of operant and respondent conditioning (Grant, 1964). Within the three-term model of operant contingencies, the antecedent—sometimes called the discriminative stimulus (SD)—is of particular significance for framing repertoires. As noted above, Goffman’s descriptions of framing point out the importance of cues and signals that bracket the beginning, perduring, and ending of framed events. SDs correspond reasonably closely to this construct, as they are defined as environmental stimuli which predict certain consequences following a specific behavior due to a history of experiencing that contingency (Skinner, 1953, 1974). Moreover, once an organism begins behaving with respect to a well-learned SD, it will typically do so to the exclusion of alternative behaviors; Goffman noted similarly that once in-frame, a participant will, without deliberation, typically narrow emitted behaviors to those congruent with the frame. In other words, a substantial aspect of framing can be understood as attending (not “attention”). Having noted the

nearly limitless range of events that one could respond to in most environments, operant learning describes how it is that people come to selectively attend and respond to some events but not others, as Goffman observed.

It is now useful to bring in a case example, to more concretely illustrate the translations discussed. Given the topic and focus of this paper, a clinical case is most appropriate, even if there is a nearly limitless range of cases that could be used from any domain of life. The case here will concern a woman, “Elise,” in her late 30s and working as a teacher, who sought therapy for increasingly uncontrollable bouts of resentment and anger while at work. Moreover, her attempts to manage these experiences were failing, leading to depressed mood and shame, which only further potentiated her resentment and anger at work. In the room, Elise presented as warm, intelligent, and highly motivated to engage in therapy; indeed, she had been in therapy multiple times previously, years apart, to address similar issues, and had found it both helpful and enlightening. However, Elise noticed that practices she had learned from those therapy relationships (*e.g.*, meditation, other acceptance-focused practices) were not only becoming ineffective, but they worsened her resentment and anger when she resorted to them.

Within the first two sessions, I noticed feeling impressed with how quickly Elise took to the work of therapy, with her apparent openness to considering uncomfortable questions about her own behavior and quickly grasping new ideas that might help her understand and improve herself. Interestingly, Elise also shared that she had always been a star student, even when she went through a “rebellious punk” phase in her adolescence. And she continued excelling in college, even after being informed by multiple faculty members that she was a poor fit for her desired career path, acting/theater. Elise also shared that she had a high-conflict relationship with

her mother, characterized by an early memory wherein Elise demanded attention from her mother after school, who responded by throwing a kitchen pot in Elise's general direction.

My being impressed at Elise's performance in therapy, then, began to resemble the dynamic of Elise's high performance in school and, later, at work. Like those two domains, therapy immediately became a setting where Elise attended primarily to cues of disapproval and rejection that functioned as SDs for behaving to avert such outcomes. Significantly, Elise shared that her mother was categorically supportive of her academic pursuits—at least until Elise expressed aspirations to go into acting/theater. This last point appeared connected to her difficulties with resentment and anger at work: Elise likely experienced a history of being punished for expressing and acting on her spontaneous desires and urges (*viz.* the kitchen pot memory and being dissuaded from her original career aspiration), and was instead negatively reinforced for “high performance,” which produced the consequences of approval/belonging, as well as escaping/evading the anger and rejection of others. This then generalized in such a way that novel relationships were similarly framed in this evaluative manner, including her adoption of previously effective acceptance-based coping behaviors. In other words, many SDs that for most do not signal an opportunity for approval or disapproval did function thusly for her, presumably due to a history of being praised or rebuked in circumstances that result in neither praise nor rebuke for most others. As such, those coping behaviors eventually came to stand for the impending threat of having a pot thrown at her if she did not adequately quell her own resentment and anger, which understandably would have produced a paradoxical increase of those feelings.

From a frame analytic perspective, Elise primarily framed many of her relationships—including that with herself—within an evaluative social agent frame, *i.e.*, the roles for behavior did not simply describe what she would typically do, but what she *should* typically do. This frame was characterized by aversive control, *i.e.*, behaviors were reinforced when they produced the removal of aversive stimuli, particularly social stimuli. Necessarily, this means that alternative behaviors in her relationship repertoire were punished, *i.e.*, spontaneous self-expression was met with aversive social consequences. Indeed, much of this dynamic was characterized by Elise's early memory with her mother as well as her memory of her mother's reinforcement of Elise's academic pursuits, the remembering of which resulted in her attending to similar SDs and all the expectations linked to that contingency.

This suggests that how she learned this primary framing has much to do with her early attachments, a pattern also echoed by psychoanalytic and systems approaches (Bowlby, 1978; Beavers, 1977; Levy, 1998). This is also reflected by Elise's memories of those experiences, the recalling of which memories is itself a learned behavior, one that appears to be subject to, and therefore usefully tracks, recurring behavioral contingencies later in life (Karson, 2006). This can be translated into behavior analytic terms as an instance of stimulus generalization (Guttman & Kalish, 1956), *i.e.*, how initially learned SDs are responded to as signals for the original contingency, but in novel settings. Some of this might have occurred through respondent conditioning, such that certain gestures, inflections of speech, facial expressions, or even incidental objects (*e.g.*, pots) took on response functions due to their proximity with intense, autonomic respondent behaviors (*e.g.*, physiological activation, crying). These stimuli would be behavior-analytically described as conditioned threat signals (Andreatta et al., 2015). After

learning this with her mother, Elise's repertoire likely expanded these contingencies via formal generalization, *i.e.*, the transference of response functions based on the physical similarities between stimuli. In Elise's case, for example, early experiences at school would have allowed her to generalize the size difference between herself and her mother to that between herself and teachers. Given the educational setting, and the gender skew towards women working in early education, personal characteristics coding as feminine may have also participated in this form of stimulus generalization.

This raises the question of how it is that Elise could have generalized the SDs, which prompt contingencies punishing self-expression/reinforcing "high performance," to her relationship with me, who is neither a woman nor larger than her. The behavior-analytic accounting involves the *symbolic* (rather than formal) generalization of stimuli and response functions. Significantly more so than non-humans, human beings demonstrate a strong capacity for discriminating and generalizing *contingencies themselves* in addition to physical stimuli (Jovanovic, et al., 2006). This means that the experience of any particular contingency type (*e.g.*, negative reinforcement) may *itself* function as an SD within an even broader behavioral contingency. Likewise, humans have also been observed to be far more responsive to their own behavior *per se*, meaning that the behavior occasioned by some other SD (whether symbolic, formal, or a combination of the two) could also itself serve as an SD for further contingencies of behavior. Behavior analysis terms this latter event "behavior-behavior relations," which is considered controversial as completely accounting for behavioral learning (Hayes et al., 1986). However, in this translation, such behavior-behavior relations are posited only to function as a class of SDs; the consequence portion of the ABC contingency I will leave agnostic, for the



moment. In any case, such symbolic contingencies may then allow individuals to broadly generalize a heavily reinforced repertoire from early in life. This degree of generalization could be considered a translation of primary framing, which so defined might mean, “a set of SDs that are so broadly generalized as to always be functionally present in the individual’s environment.”

In Elise’s case, there were two immediate possibilities for how her primary framing symbolically generalized to our relationship. The first is the similarity of contingencies between therapy and education: in both settings, questions are asked, and answers supplied, with the answer itself further responded to by one of the participants. In the case of education, the response-to-the-answer is typically evaluative in character, while such does not always obtain in therapy. However, this hardly matters, as the initial presentation of such a contingency might be enough to occasion Elise’s well learned “high performance” contingency. Moreover, Elise’s past history of being (and excelling) in therapy likely contributed to generalization on a formal basis as well, with regard to environmental stimuli (*e.g.*, room layout of therapy offices).

The second and more significant possibility is that Elise’s private behaviors, *i.e.*, “thinking” and “self-talk,” entered into behavior-behavior relations with her early attachment contingencies. She shared that in moments of distress, she would self-soothe in a particular “voice,” which when vocalized carried a sing-songy prosody, and it would recite statements such as, “Things will be okay, just remember to breathe,” or “Remember to meditate.” Importantly, this “voice” also tended to precede spikes in Elise’s feelings of resentment, suggesting that it is an important node in the network of behavior-behavior-related responses for Elise (Hayes & Brownstein, 1986). Given the relationship between those familiar, difficult private events, the relationships and figures from which she learned those responses, and the near impossibility of

precisely controlling all of one's private behaviors (Hayes & Strosahl, 2004), such a behavior could easily function as an omnipresent SD for her "high performance"/resentment repertoires. Recall that this pervasiveness is the behavior-analytically significant feature of primary framing.

Keying, in behavior-analytic terms, is defined similarly to primary framing—it substantially comprises the network of SDs that differentially predict consequences based on learning history. Keying differs from primary framing in that the former serves as motivating operations for the latter—motivating operations are events which change the effectiveness of consequence stimuli to function as reinforcers or punishers. For instance, the key of technical re-doings, which is common in educational settings, might be prompted by the presence of evaluative responses in the form of grading. In the case of a doctoral program in clinical psychology, the primary frame might be that of therapy, but there are additional consequences that may follow for the doctoral student which would not for a licensed practitioner (*e.g.*, passing/failing classes). When such contingencies are added, they become motivating operations that induce the effectiveness of grades (or other previously dis-attended stimuli) to shape behavior in a way that does not obtain absent those contingencies; when there is a sufficient network of such contingencies (*e.g.*, as exemplified in an educational curriculum/institution), that network of contingencies—functioning to motivate a greater or different range of consequences as reinforcing or punishing—could be said to be a keying. Often, the differences in consequences produced by a keying are characterized by a restriction, or lowering, of the stakes involved—boxing contests keying restricts the physical damage inflicted on participants, while educational keyings restrict the professional damage inflicted on trainees should something go wrong. Note that once an individual has learned to key, they are likely to generalize it to other

settings (*e.g.*, training workshops, or informal tutorials) by the same generalization processes described above.

For Elise, therapy was keyed as a technical re-doing, which is the type of keying of many psychotherapies. Given her intellect, Elise demonstrated some tendency to over-laminate (*i.e.*, create psychological distance from strong affective experiences) via verbal analysis, but was not inflexible with respect to this repertoire, as she also experienced and acted on intense affect when it arose in the room. In many ways, Elise was healthier in her keying repertoires, as she neither keyed the therapy as a contest nor fell into under-laminating the therapy (*i.e.*, failing to key the event, which would lead to primarily framing the therapy and making it harder to distinguish from other relationships).

Though Elise did not typically mis-key her therapy *per se*, it still presented difficulties in that the key common to therapy—technical re-doings—is the very one that for her was over-generalized to the point of nearly being primary. Though we could (and did) work on reshaping specific behaviors (such as her immediate coping responses to resentment), the inflexibility of her keying placed our interactions within the very framing that was cuing the avoidant, negatively reinforced repertoire that caused Elise to struggle with resentment and self-punishment (“throwing pots at [herself],” as she nicely phrased it). That is, while specific behaviors such as self-soothing might have been reshaped through more strictly behavior-analytic operant learning, the consequences utilized were still the granting of approval/escape of disapproval—her primary framing, defined as an omnipresent set of SDs, would cue her to attend to this aspect of our interactions. As noted above, because humans are able to incorporate the presence of some contingency itself as the SD to other contingencies (in

Elise's cases, approval/disapproval as an SD for her "high performance" repertoire), any success we had in reshaping specific behaviors tended to only reinforce her broader repertoire—the stance that approval/disapproval from authority figures are the consequences that matter most.

Such a situation creates a tricky catch-22 in therapy: if I were to explicitly discourage Elise from acting to only please me, my very act of saying so would itself be an instance of what I would not want her to do. Even though we jointly formulated her goals in therapy as "learning how to not get an A+ in therapy," it was important we did so not by habituating her to getting an F in therapy—this, at the least, would have reinforced her primary framing—but by shaping up a keying of therapy that was not strictly technical re-doings. We found this by moving the therapy more into the key of make-believe, by incorporating aspects of Internal Family Systems (Schwartz, 1995) and dramaturgical (Karson, 2008) practices of therapy. Specifically, I asked Elise to characterize the various thoughts and feelings she noticed as belonging to specific "characters" in the "cast" of her psychology—this had the advantage of connecting with her previous experience and interest in theater—and then to make guesses about how these characters, with their own attitudes and values, interacted with each other, based on her feelings and reactions in/about various events in her life.

Elise took quickly to this practice, and she was able to flesh out a cast of characters, including "The Benevolent Queen," who she identified as the sing-songy voice noted above, and who notably spoke up most when things weren't going smoothly; and the "Rebellious Teenager," who she noticed was loudest before and after her episodes of intense resentment. Most importantly, Elise began to have moments where she was able to state that she did not have an answer about what was going on with her "cast of characters," in contrast to her usually saying

something insightful and impressive within the frame of technical re-doings. This might reflect the different set of consequences potentiated by the motivating operations that comprise the make-believe key: playfulness, experimentation, and engrossment are established as appetitive, reinforcing consequences to attend to, *contra* the stimuli of evaluation, “grading,” and approval/disapproval that are motivated as consequences for attending in the technical re-doing key. Moreover, one key may have the effect of an abolishing operation—events which *reduce* the effectiveness of stimuli to function as reinforcers or punishers (Laraway et al., 2003)—on the stimuli associated with a different key. This appeared to be the case with Elise, who may have also learned to frame her experience in theatrical pursuits in this key, which put her in position to experience contingencies that taught her to attend less to avoiding aversive consequences such as disapproval, and more to pursuing appetitive consequences such as playing and engrossment.

The construct of “roles,” which primary framing and keying both supply for its participants, is also important. In behavior-analytic terms, a role can be considered a repertoire of rule-governed behaviors—verbal behaviors that track and predict behavioral contingencies, and are generalized to settings beyond the ones in which they were learned (Hayes et al., 1986). Moreover, such a repertoire of rules is itself linked to a verbal label (*e.g.*, “patient” or “teacher”) that serves as one of its discriminative stimulus. Frame analysis views a “role” as the range of behavioral options available to the participant who is occupying that role; rule-governed behaviors likewise restrict behavioral options, and are initially reinforced for a history of being effective in navigating novel environments, but may eventually come to be reinforced for maintaining their own coherence (Törneke, Luciano & Salas, 2008). As with primary framing and keying, the roles that they specify are likewise cued by the set of SDs which direct individual

attending, and in the case of the technical-redoing key, the two broad sets of roles available are “trainee” and “trainer.” Each carries with it a set of rules for behaving, with the “trainee” typically guided by the “trainer”—this suggests that the “trainer” has substantially more influence in defining the situation, and therefore the experiences of the “trainee.” Such a frame was clear in how Elise acted within the technical-redoing key, and in her descriptions of many of her other relationships (including with herself).

By contrast, the make-believe key is not necessarily so hierarchical, as the playfulness of the frame is compatible with, or even strengthened by, a more egalitarian and collaborative stance. It is perhaps this aspect of the make-believe key that functions as an abolishing operation for approval/disapproval as a consequating stimulus: the very activities (*e.g.*, play) that the key exists to support are already reinforcing without any evaluative relations between participants. Viewed from the causal mode of selection-by-consequence, if such status relations were not necessary to maintain the learning and teaching of this key across individuals and generations, then there would be no reason for the key to show such features, and so it does not.

Notably, only a small part of what benefited Elise by the re-keying to make-believe was in shaping her ability to be playful; clearly, she already knew how to do this, as evidenced by the speed with which she took to this key. More significant was the extent to which her primary framing—the evaluative social agent frame—and her default keying in therapy—technical re-doing, with an emphasis on the evaluative aspect—were inflexible with regards to competing cues in the environment. Multiple approaches to psychotherapy have pointed out that this type of psychological rigidity or narrowness (Horney, 1950; Hayes & Strosahl, 2004) appears intimately connected to psychopathology, and so it was with Elise, who saw opportunities to be

approved/disapproved of in situations where 1) there were other consequences to be had, and 2) the focus on approval/disapproval did not help her make the most effective choices with regards to her other priorities (*e.g.*, resentment at work). Not coincidentally, behavior analysts have also noted a downside of rule-governed behaving as marked increases in insensitivity to novel environments and contingencies (Hayes et al., 1986). By shaping up our therapy interactions as shifting between a technical-redoing key and a make-believe key, Elise and I worked to strengthen not only her ability to attend to playfulness and disattend the approval/disapproval of authority figures, but also how to make the switch between those kinds of attending.

Shaping up Elise's ability to attend to SDs for a make-believe keying required that the technical re-doing key undergo frame breaking. In behavior analytic terms, breaking a frame means that 1) the SDs which mark the beginning and continuing of a frame are incomplete or diverge significantly in form and function from her learned expectations; or 2) that the contingencies which characterize a given frame do not produce the reinforcers and punishers typically co-occurring with the frame, leading to extinction (Skinner, 1974); or 3) a combination of the two. Given that the therapy frame must remain unbroken, that a major key of therapy is the technical re-doing frame, and that Elise demonstrated an over-generalized attending to SDs for that kind of evaluative framing, we depended primarily on that second feature of frame breaking to weaken the strength of her self-evaluative framing.

The key breakthrough occurred when Elise requested to change the frequency of therapy from weekly to biweekly, ostensibly due to financial concerns. She notably described her financial reasons for the request as soon as she made it, and did so visibly anxious, suggesting to me that this interaction was still occurring with my approval/disapproval functioning as

reinforcer/punisher. Instead of making a decision at that moment or discussing her verbal justifications of the request, we spent the entire session focused on what her cast of characters had to say about the situation. Interestingly, Elise noticed that her *Rebellious Teenager* advocated for her to just start coming biweekly and that I could just “deal with it.” This led to an examination of the function of her manner of broaching the subject, which she eventually acknowledged as an attempt to “not offend [me].” Elise then stated directly that she felt our sessions were less helpful than when we began, and that she simply *just wanted* to come less frequently. Set against Elise’s rigid framing of an authority figure’s approval/disapproval of her, her directly expressing/acting on her own desire at the risk of “offending” me appeared to be a newer, healthier alternative way of responding in our relationship. Given Elise’s generally high level of functioning, her well-developed support network, and the relatively non-urgent acuity of her distress, I believed that biweekly therapy could still be effective for her. As such, at the end of the session, I left the scheduling question up to her; she herself then chose to come biweekly, and so the remainder of our therapy happened on a biweekly basis.

This produced a weakening, if not breaking, of the evaluative frame because Elise was not (or at least, much less) reinforced by (the possibility of) my approval or disapproval as controlling consequences. It also mattered that she acted on an SD—her own desires—that she typically would not in similar situations; because she was reinforced for the behavior following that SD, the entire contingency worked to establish her own desires as effective signs for guiding her behavior and establishing the meanings of her experiences. In much the same way that a game of Scrabble is “broken” when players are rewarded points for playing nonsense words,



Elise's evaluative framing started breaking (but far from completely) when it became clear that not playing by the rules of that frame could also produce appetitive consequences.

After several more months of (biweekly) work, Elise began talking about starting to turn down requests for help from colleagues at school, and then asking colleagues for help, when she was feeling overburdened—neither of which she had much done in the past. Not surprisingly, this drastically reduced her experience of resentment towards others and herself. No longer framing these situations as being evaluated by others, Elise appeared to gain behavioral flexibility in how she framed those interactions: they were no longer a matter of her failing to perform up to standards, but simply doing what was best for her in those situations. Eventually, Elise had the opportunity to apply for a promotion to a supervisory position at her school. Though she expressed concern about how her colleagues would respond to her doing so—the promotion would have made her *their* new supervisor—Elise had experienced enough contingencies cued by what she wanted, not what others expected of her, to act on the latent ambition that had been muted by the over-generalization of her evaluative framing. As a result, Elise ended her therapy several weeks after winning the promotion.

Ultimately, frame analysis would define psychopathology as instances of framing errors—“a perspective that is radically inapplicable, which will itself establish a set...of expectations that will not work,” as Goffman himself notes. In behavior analytic terms, a framing error is attending to a set of SDs—which may include the presence of certain contingencies or verbal rules for behaving—to the exclusion of competing SDs, which is over-generalized to many if not all environments, and which resists extinction or reshaping despite aversive outcomes from behaving thusly. Often the strength of such framing errors results from their

being negatively reinforced by the avoidance/escape of some consequence(s) even more aversive than those apparently produced (as in cases of substance abuse, continued use of a substance may produce aversive consequences for the user eventually, but such are still less aversive than what using the substance allows the user to escape/avoid). Though framing errors may occur at the level of primary framing, keying, and tracking, its defining function is the context-insensitive manner in which it motivates and abolishes various stimuli as reinforcers and punishers, to the exclusion of competing frames. It is important here to note that this definition appears similar to the behavior-analytic definition of primary framing, *i.e.*, a set of SDs that is so broadly generalized as to always be functionally present in an individual's environment. Perhaps the distinguishing function between primary framing and erroneous framing is to be found only in the degree to which individuals reshape their behavior subsequent to consequences that *ought* to be punishing of the primary frame.

#### Concluding Remarks

In undertaking this translation, my first aim is to broaden the scope of the clinical horizon of behavior analysis, by pointing out the consilience of certain behavioral events (*i.e.*, framing) with a behaviorally pragmatic approach to human psychology. I specifically take the approach of theoretical translation due to the fact that psychologists and clinicians—of all theoretical orientations—are themselves naturally human, which means that knowledge and practices thereby produced will themselves demonstrate the very patterns that such knowledge is about. After all, Skinner noted that one aspect about his approach which is “radical” is that the behavior of behavior analysts is itself subject to the principles and explanatory accounts of behavior

analysis (Skinner, 1974); simply speaking about someone's behavior is itself a behavior, and so does not remove any such speaker from the stream of behaving that could be analyzed.

Of principal concern are the well-established patterns involving in-group identification and its attendant concerns about power and prestige, which still obtain when the subject group is psychologists or behavior analysts (Shah, Kruglanski, & Thompson, 1998; Parker, 1999). Regarding the former, this is evident in the competition amongst the many orientations to psychology. And regarding the latter, this is evident in the lack of consideration by behavior analysts towards clinical phenomena observed by practitioners of other traditions. For example, concepts such as transference (from the psychoanalytic tradition) or the conflation of logical typing (from the philosophy of Bertrand Russell and Alfred Whitehead, 1910-1913, and Alfred Korzybski, 1933) were overlooked until at least the 1980s. What changed this state of affairs was the translating (whether deliberate or not) of such concepts into the behavior-analytic framework—the radical behavioral equivalent of transference was formulated by Kohlenberg and Tsai (2007) with their development of Functional Analytic Psychotherapy (“FAP”), while logical typing found its footing thanks to the work of Hayes et al. (1986, 2004), introducing the third-wave approach to behaviorism.

A further concern is the emphasis in behavior analysis on maintaining philosophical coherence/clarity, as radical behaviorism is formulated as fundamentally a philosophy of science which so happens to be applied to human behavior (Chiesa, 1994). The project of translating Frame Analysis necessitates a consideration of its underlying philosophy towards behavioral events, which, as I described above, is highly consistent with the contextual, process-focused philosophy of behavioral pragmatism. Articulating such consilience between these approaches is

the first step in bringing in frame analytic ideas that could improve the effectiveness of clinical formulation and intervention within a behavior-analytic approach.

The case of Elise points to clinical issues resembling those that might otherwise be labeled “transferential”; as noted, FAP has already introduced some aspects of such a concept into behavior analysis, particularly by noting the generalization of problematic relationship repertoires to the therapeutic relationship. However, the standard intervention sensibility of FAP—reshaping, *in vivo*, specific problematic behaviors with the therapist acting as the primary source of social reinforcers—may not have been so helpful for a case like Elise. Even had her specific responses been reshaped to be less “high-performing,” she would have continued to be reinforced for her stance of requiring approval/disapproval from authority figures as a major shaping contingency of her behavior. Mindfulness and acceptance-based approaches such as Acceptance and Commitment Therapy may likewise have continued to reinforce such a stance. Integrating a frame analytic perspective, however, highlighted the possibility of such a contingency not only shaping her behavior, but being a major obstacle for her life. Because frame analysis also includes “framing events” as shapeable behaviors, it made her framing stance amenable to a behavior-analytic understanding that could specify the SDs and reinforcing consequences which maintained that stance. This allowed for one of her most generalized behaviors to undergo interventions (*e.g.*, differential reinforcement of alternatives, extinction) that may have otherwise remained unaddressed, if not maintained, by more “traditional” behavior analytic interventions.

My second goal in this project follows from the first, and is broader in nature: to increase the communication and exchange of ideas and epistemologies between different theoretical

orientations of psychology, generally. In one sense, each theoretical orientation of psychology can be considered a map for navigating the territory of human behavior, in the way that other disciplines are maps for navigating their own respective territories (Korzybski, 1933). As Kuhn (1962) noted, a characteristic of immature scientific disciplines is that of many different maps competing for acceptance as the paradigmatic epistemology for a subject of study; this appears to characterize psychology, which has been a distinct discipline for barely more than a century. In order to sort through the proliferation of maps, it is useful to compare different maps and notice any overlaps they might contain—setting aside anti-realist epistemologies, it is assumed that there would be some unitary territory on which all maps must be based, and that some landmarks of such a territory would simply be too prominent to be ignored. Beyond my goal for increasing clinical effectiveness, I hope to have demonstrated such overlaps between frame analysis and behavior analysis, two approaches to knowing human behavior that have rarely crossed paths but which nonetheless show a remarkable degree of overlap in how they account for the diversity of human behaving; it is no accident that I have also referenced, if only in passing, the findings of psychoanalytic and systemic researchers and writers in the course of this paper. If the behavioral sciences, including clinical psychology, are to continue working towards its goal of understanding the human condition, and its value of ameliorating and improving that condition, then the project of exchanging and integrating maps may offer yet another path towards epistemological clarity and pragmatic effectiveness.

## References

- Aho, K. (2008). Medicalizing mental health: A phenomenological alternative. *Journal of Medical Humanities, 29*, 243-259.
- Andreatta, M., Leombruni, E., Glotzbach-Schloon, E., Pauli, P., & Mühlberger, A. (2015). Generalization of contextual fear in humans. *Behavior Therapy, 46*(5), 583-596.
- Barnes-Holmes, D. (2000). Behavior pragmatism: No place for reality and truth. *The Behavior Analyst, 23*(2), 191-202.
- Beavers, W. R. (1977). *Psychotherapy and Growth: A Family Systems Perspective*. New York, NY: Brunner-Routledge.
- Biglan, A., & Hayes, S. C. (1996). Should the behavioral sciences become more pragmatic? The case for functional contextualism in research on human behavior. *Applied & Preventive Psychology, 5*, 47-57.
- Boucher, H. C. (2011). The dialectical self-concept II: Cross-role and within-role consistency, well-being, self-certainty, and authenticity. *Journal of Cross-Cultural Psychology, 42*(7), 1251-1271.
- Bowlby, J. (1978). Attachment theory and its therapeutic implications. *Adolescent Psychiatry, 6*, 5-33.
- Bracken, P., & Thomas, P. (2005). *Postpsychiatry: Mental Health in the Postmodern World*. New York, NY: Oxford University Press.
- Chiesa, M. (1994). *Radical Behaviorism: The Philosophy and the Science*. Boston, MA: Authors Cooperative, Inc.
- Cipriani, A., Furukawa, T. A., Salantia, G., Chaimani, A., Atkinson, L. Z., Ogawa, Y., Leucht, S., Ruhe, H. G., Turner, E. H., Higgins, J. P. T., Egger, M., Takeshima, N., Hayasaka, Y., Imai, H., Shinohara, K., Tajika, A., Ioannidis, J. P. A., & Geddes, J. R. (2018). Comparative efficacy and acceptability of 21 antidepressant drugs for the acute treatment of adults with major depressive disorder: a systematic review and network meta-analysis. *The Lancet, 391*, 1357-1366.
- Davids E. L., Roman N. V., & Leach, L. (2017). The link between parenting approaches and health behavior: A systematic review. *Journal of Human Behavior in the Social Environment, 27*(6), 589-608.
- Diller, J. W. & Lattal, K. A. (2008). Radical behaviorism and Buddhism: Complementarities and conflicts. *The Behavior Analyst, 31*(2), 163-177.

- Duckro, P., Beal, D., & George, C. (1979). Research on the effects of disconfirmed client role expectations in psychotherapy: A critical review. *Psychological Bulletin*, *86*(2), 260-175.
- Goffman, E. (1974). *Frame Analysis: An Essay on the Organization of Experience*. Boston, MA: Northeastern University Press.
- Grant, D. A. (1964). Classical and operant conditioning. In Melton, A. W. (Ed.), *Categories of Human Learning*, pp. 1-31, New York, NY: Academic Press, Inc.
- Gray, A. (1994). *An Introduction to the Therapeutic Frame*. New York, NY: Brunner-Routledge.
- Greenberg, R. P., Constantino, M. J., & Bruce, N. (2006). Are patient expectations still relevant for psychotherapy process and outcome? *Clinical Psychology Review*, *26*, 657-678.
- Gregson, K., & Lane, R. C. (2000). On the beginning of dyadic therapy: The frame and the therapeutic relationship. *Journal of Psychotherapy in Independent Practice*, *1*(3), 31-41.
- Guttman, N., & Kalish, H. I. (1956). Discriminability and stimulus generalization. *Journal of Experimental Psychology*, *51*(1), 79-88.
- Hayes, S. C., & Brownstein, A. J. (1986). Mentalism, behavior-behavior relations, and a behavior-analytic view of the purposes of science. *The Behavior Analyst*, *9*, 175-190.
- Hayes, S. C., Brownstein, A. J., Zettle, R. D., Rosenfarb, I., & Korn, Z. (1986). Rule-governed behavior and sensitivity to changing consequences of responding. *Journal of the Experimental Analysis of Behavior*, *45*(3), 237-256.
- Hayes, S. C., Hayes, L. J., & Reese, H. W. (1988). Finding the philosophical core: A view of Steven C. Pepper's "World Hypotheses." *Journal of Experimental Analysis of Behavior*, *50*, 97-111.
- Hayes, S. C., Strosahl, K. D. (2004). *A Practical Guide to Acceptance and Commitment Therapy*. New York, NY: Springer Science + Business Media, LLC.
- Horney, K. (1950). *Neurosis and Human Growth: The Struggle Toward Self-Realization*. New York, NY: W. W. Norton & Company, Inc.
- Ioannidis, J. P. A. (2008). Effectiveness of antidepressants: An evidence myth constructed from a thousand randomized trials? *Philosophy, Ethics, and Humanities in Medicine*, *3*(1), 14-22.
- Jovanovic, T., Norrholm, S. D., Keyes, M., Fiallos, A., Jovanovic, S., Myers, K. M., Davis, M., & Duncan, E. J. (2006). Contingency awareness and fear inhibition in a human fear-potentiated startle paradigm. *Behavioral Neuroscience*, *120*(5), 994-1004.

- Kanter, J. W., Manbeck, K. E., Kuczynski, A. M., Maitland, D. W. M., Villas-Bôas A., & Reyes Ortega, M. A. (2017). A comprehensive review of research on Functional Analytic Psychotherapy. *Clinical Psychology Review, 58*, 141-156.
- Karson, M. (2006). *Using Early Memories in Psychotherapy: Roadmaps to Presenting Problems and Treatment Impasses*. Lanham, MD: Jason Aronson, Inc.
- Karson, M. (2008). *Deadly Therapy: Lessons in Liveliness from Theater and Performance Theory*. Lanham, MD: Jason Aronson, Inc.
- Kohlenberg, R. J., & Tsai, M. (2007). Functional Analytic Psychotherapy: A bridge between psychoanalysis and behavior therapy. In R. J. Kohlenberg & M. Tsai (Eds.), *Functional Analytic Psychotherapy: Creating Intense and Curative Therapeutic Relationships* (pp. 169-181). New York, NY: Springer Science + Business Media, LLC.
- Korzybski, A. (1933). *Science and Sanity: An Introduction to Non-Aristotelian Systems and General Semantics*. Berkeley, CA: The International Non-Aristotelian Library Pub. Co.
- Kuhn, T. S. (1962). *The Structure of Scientific Revolutions*. Chicago, IL: University of Chicago Press.
- Laraway, S., Snyderski, S., Michael, J., & Poling, A. (2003). Motivating operations and terms to describe them: some further refinements. *Journal of Applied Behavior Analysis, 36*, 407-414.
- Levy, M. S. (1998). A helpful way to conceptualize and understand reenactments. *The Journal of Psychotherapy Practice and Research, 7*(3), 227-235.
- Loy, D. (1996). Zhuangzi and Nāgājūna on the truth of no-truth. In Kjellberg, P., & Ivanhoe, P. J. (Eds.), *Essays on Skepticism, Relativism, and Ethics in Zhuangzi* (pp. 50-67). Albany, NY: State University of New York Press.
- Lucy. (2012, October 26). *Understanding anxiety: Broken leg vs. broken mind*. Retrieved from <https://www.time-to-change.org.uk/blog/understanding-anxiety-broken-leg-broken-mind> on March 12th, 2018.
- Newnes, C. (2004). Psychology and psychotherapy's potential for countering the medicalization of everything. *Journal of Humanistic Psychology, 44*(3), 358-376.
- Parker, I. (1999). Critical psychology: Critical links. *Annual Review of Critical Psychology, 1*, 3-18.
- Parth, K., Datz, F., Seidman, C., & Löffler-Stastka, H. (2017). Transference and countertransference: A review. *Bulletin of the Menninger Clinic, 81*(2), 167-211.



- Pavlov, I. V. (1926). *Conditioned Reflexes: An Investigation of the Physiological Activity of the Cerebral Cortex*. London, England: Oxford University Press.
- Russell, B., & Whitehead, A. (1910, 1912, 1913). *Principia Mathematica* (3 volumes). Cambridge, England; Cambridge University Press.
- Schwartz, R. C. (1995). *Internal Family Systems Therapy*. New York, NY: The Guilford Press.
- Shah, J. Y., Kruglanski, A. W., & Thompson, E. P. (1998). Membership has its (epistemic) rewards: Need for closure effects on in-group bias. *Journal of Personality and Social Psychology*, 75(2), 383-393.
- Singer, P. R., & Fourcher, L. A. (1979). The psychological therapist and medicine. *Psychotherapy: Theory, Research and Practice*, 16(3), 328-333.
- Skinner, B. F. (1938). *The Behavior of Organisms*. New York, NY: Appleton-Century-Crofts, Inc.
- Skinner, B. F. (1953). *Science and Human Behavior*. New York, NY: Macmillan.
- Skinner, B. F. (1974). *About Behaviorism*. New York, NY: Knopf.
- Törneke, N., Luciano, C., & Salas, S. V. (2008). Rule-governed behavior and psychological problems. *International Journal of Psychology and Psychological Therapy*, 8(2), 141-156.
- Ward-Horner, J. C., Cengher, M., Ross, R. K., & Fienup, D. M. (2016). Arranging response requirements and the distribution of reinforcers: A brief review of preference and performance outcomes. *Journal of Applied Behavior Analysis*, 50(1), 181-185.
- Wilson, K. G. (2001). Some notes on theoretical constructs: Types and validation from a contextual behavioral perspective. *International Journal of Psychology and Psychological Therapy*, 1(2), 205-215.